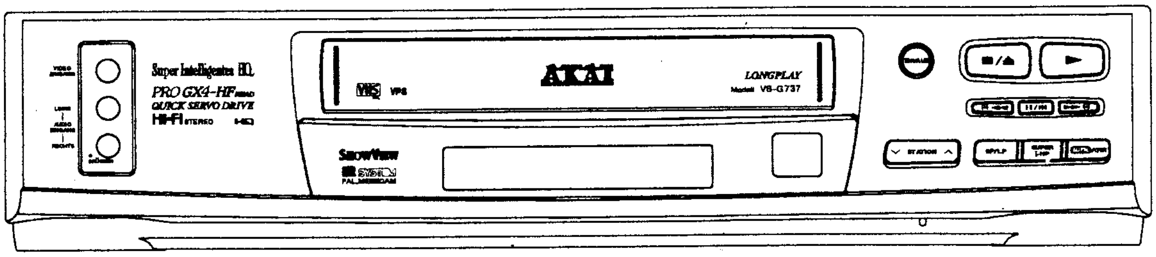
VS-G720,G725
VS-G735,G737

AKAI SERVICE MANUAL

V15196


Super Intelligentes HQ
PRO GX4-HF
QUICK SERVO DRIVE
Hi-Fi STEREO
VHS VPS
AKAI
LONGPLAY
Modell VS-G737
ShowView

MODEL VS-G737EOG-D

HQ HIGH QUALITY VHS PAL Hi-Fi

SHOWVIEW

VIDEOPlus+

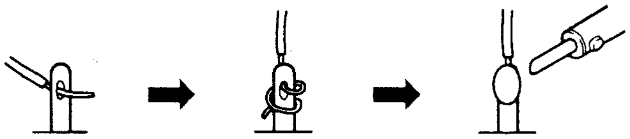
VIDEO CASSETTE RECORDER

MODEL VS-G720 EOH-D
MODEL VS-G725 EOH-D
MODEL VS-G735 EA-D/EDG/EK-N EO-D/EOH-DN/EOH-N
MODEL VS-G737 EOG-D

★ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol are critical for safety. Replace them only with the parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with the specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts.
   Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap the ends of the wires securely around the terminals before soldering.



6. Make sure that wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions.

The leakage-current should be less than 0.5 mA rms AC.

The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 M ohms.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.

Please leave them at an appropriate depot.

★ SPECIFICATIONS

Format	
EA-D	VHS standard
Except EA-D	VHS standard (PAL, MESECAM)
Video recording system	Rotary, slant azimuth two-head helical scan system
Rotary heads	4 video heads & 2 audio heads
RF input	
EA-D	System B, G VHF ch 0 - 5, 5A, 6 - 11, UHF ch 21 - 69
EDG	System D, K VHF ch 1 - 12, UHF ch 21 - 69 System B, G VHF ch 2 - 12, UHF ch 21 - 69 Cable ch S1' - S3', S1 - S41
EK-N	System I UHF ch 21 - 69
EO-D	System B, G (PAL, SECAM) VHF ch 2 - 4, 5 - 12, UHF ch 21 - 69 Cable ch S1' -S3', S1 - S20
EOG-D/EOH-D/ EOH-DN/EOH-N	System B, G (PAL, SECAM) VHF ch 2 - 4, 5 - 12, UHF ch 21 - 69 Cable ch S1' - S3', S1 - S41
Stereo system	
EA-D/EOG-D/EOH-D	German sound multiplex (A2)
EK-N	NICAM-I (U.K. NICAM)
EOH-N	B/G NICAM
EOH-DN	B/G NICAM and German sound multiplex (A2)
RF output	
EA-D	System B type modulation VHF ch 0, 1 switchable (preset ch 1)
EDG	System K/G type modulation UHF ch 30 - 39 adjustable (preset ch 36)
EK-N	System I type modulation UHF ch 30 - 39 adjustable (preset ch 36)
EO-D/EOG-D/EOH-D/ EOH-DN/EOH-N	System G type modulation UHF ch 30 - 39 adjustable (preset ch 36)
Recording (line input)	
EA-D/EK-N	PAL
Except EA-D/EK-N	PAL, SECAM (recorded as MESECAM)
Playback (line output)	
EA-D/EK-N	PAL
EO-D/EOG-D/EOH-D/ EOH-DN/EOH-N	PAL, SECAM (MESECAM Tape)
EDG	PAL, SECAM (MESECAM Tape) NTSC 4.43 (NTSC Tape) Simulated PAL (NTSC Tape)
Video	
Line input level	0.5 - 2.0 Vp-p/75 ohms, unbalanced
Line output level	1.0 Vp-p/75 ohms, unbalanced
S/N ratio	More than 45 dB
Horizontal resolution	More than 250 lines

Audio	(VHS Hi-Fi : 2 ch, Linear : 1 ch)
Line input level	–6 dBs/50 k ohms, unbalanced
Line output level	–6 dBs/1 k ohms, unbalanced
Dynamic range	More than 90 dB (VHS Hi-Fi)
Frequency response	20 - 20,000 Hz (VHS Hi-Fi)
Wow & Flutter	Less than 0.005 % WRMS (VHS Hi-Fi)
Recording/playback time	
SP mode	240 min. with E-240 cassette
LP mode	480 min. with E-240 cassette
(EDG only)	
CCIR SP mode	240 min. with E-240 cassette
LP mode	480 min. with E-240 cassette
NTSC (Playback only)	
SP mode	160 min. with T-160 cassette on
EP mode	480 min. with T-160 cassette on
Tape speed	
SP mode	23.39 mm/sec
LP mode	11.695 mm/sec
(EDG only)	
CCIR SP mode	23.39 mm/sec.
LP mode	11.695 mm/sec.
NTSC SP mode	33.35 mm/sec
EP mode	11.12 mm/sec
Quick finder	
SP mode	Approx. 7 times normal speed
LP mode	Approx. 7 times normal speed
(EDG only)	
CCIR SP mode	Approx. 7 times normal speed
LP mode	Approx. 7 times normal speed
NTSC SP mode	Approx. 5 times normal speed
EP mode	Approx. 5 times normal speed
FF, REW time	Approx. 2.0 min. with E-180 cassette
Timer	
Program	8 programs/1 year and OTR
Clock reference	Quartz crystal
Display	TV screen & FLD (Tape counter, Timer, etc.)
Power requirements	
EA-D	240 V AC, 50 Hz
EDG	220 V AC, 50 Hz
EK-N	230 - 240 V AC, 50 Hz
EO-D/EOG-D/EOH-D/ EOH-DN/EOH-N	220 - 230 V AC, 50 Hz
Power consumption	
EA-D	21 W
EO-D	22 W
EK-N/EOG-D/EOH-N	24 W
EDG/EOH-D	23 W
EOH-DN	25 W
Operating temperature	5°C - 40°C
Dimensions	425 (W) x 90 (H) x 276 (D) mm
Weight	4.5 kg

Standard accessories

AC cord	1
Antenna cable	1
Remote control unit	1
Batteries for remote control	2 or 3
Operator's manual	1

0 dBs = 0.775 VRMS

∗ For improvement purposes, specifications and design are subject to change without notice.

∗ VIDEO PLUS + AND PLUSCODE ARE TRADEMARKS OF GEMSTAR DEVELOPMENT CORP. VIDEO PLUS + SYSTEM IS MANU-FACTURED UNDER LICENCE FROM GEMSTAR DEVELOPMENT CORPORATION.

∗ SHOWVIEW IS A TRADEMARK APPLIED FOR BY GEMSTAR DEVELOPMENT CORP. SHOWVIEW SYSTEM IS MANUFACTURED UNDER LICENCE FROM GEMSTAR DEVELOPMENT CORPORATION.

★ INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

Unit destinations are indicated with letters as shown below.

Symbol	Power Classification	Primary destination	TV System		
			Color	VHF	UHF
EA	S	Australia	PAL	B	G
EDG	E	East Europe	PAL	B, D	G, K
EDI	E	China	PAL	D	K, I
	Y6	Hong Kong			
EK	B	England	PAL	–	I
EM	E	Middle East, South-East Asia	PAL	B	G
	Y7	Saudi Arabia			
EO	V	Italy	PAL	B	G
EOH	E	North Europe	PAL	B	G
	S	New Zealand			
	Y1	Holland, Belgium, Spain			
	Y2	Spain			
EOG	V	Germany, Austria	PAL	B	G
ES	E	South Africa, Ireland	PAL	I	I
	Y6	Hong kong			
EGN	E	South East Asia	PAL, NTSC, SECAM	B, D, M	G, K, I, M
	Y1	France			
	Y2	South East Asia, UAE			
	Y6	Hong Kong			
	U5	Hong Kong			
SEG	E	France	SECAM	L, B	L, G
SK	E	Latin America, Oceania	SECAM	D	K

MULTI FUNCTION MENU MODE

This is an on-screen display of the various modes you can programme via the TV screen.

LANGUAGE : To select a language for the on-screen displays.

PS PRESET : To preset TV stations.

PS CANCEL : To cancel preset TV stations.

CLOCK SET : To set the clock.

MODE : To select the SPEED (tape speed), BSP (blank skip play), OSD (on screen display), AV MUTE, SYST.(colour system), TV/VCR, DIMMER (FLD brightness) and AUTO OFF modes.

⁎ NOTE ; SYST. selection is not available on some models.

SEARCH : To select the BLANK SEARCH and INTRO SCAN modes.

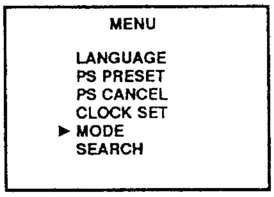
PDC SET : To set the PDC mode on or off.

VPS SET : To set the VPS mode on or off.

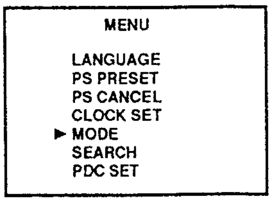
⁎ NOTE ; PDC SET or VPS SET function is only available on EDG, EK-N, EOH-DN, 725EOH-D and EOG-D models.

If necessary, refer to the respective sections in the operator's manual for detailed information.

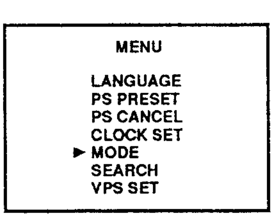
1. Press the "MENU" button on the remote control unit. The menu list screen will be displayed on the TV screen.


MENU
LANGUAGE
PS PRESET
PS CANCEL
CLOCK SET
► MODE
SEARCH

EA-D/EO-D/720EOH-D /EOH-DN(Y2) only


MENU
LANGUAGE
PS PRESET
PS CANCEL
CLOCK SET
► MODE
SEARCH
PDC SET

EK-N/EOH-DN(Y1)/ EOH-N/725EOH-D only


MENU
LANGUAGE
PS PRESET
PS CANCEL
CLOCK SET
► MODE
SEARCH
VPS SET

EDG/EOG-D only

2. Select the desired menu by setting the arrow indicator to the appropriate position with the cursor "∧" or "∨" button.
   The arrow indicator moves upwards each time when the "∧" cursor button is pressed. Pressing the "∨" cursor button will move the arrow indicator downwards.
3. Press the "OK" button.
   The selected menu screen will be displayed on the TV screen.
4. Select the desired mode (or function) by setting the arrow indicator to the appropriate position with the cursor "∨" or "∧" button. The number of the modes (or functions) depends on the sort of the menu.
5. Set the each mode (or function) by pressing the "∨" or "∧" cursor button and ">" or "<" cursor button.
6. Press the "OK" button.
   The selected menu screen will be disappeared few seconds after the "OK" button is pressed. This means the setting has been completed correctly.

MANUAL TRACKING/PICTURE/STABILITY ADJUSTMENT

Using the remote control, the VCR can be adjusted for tracking and picture sharpness anytime during the playback mode.

- Manual tracking control
  Press the "<" or ">" cursor button repeatedly until the picture is clear. During manual tracking adjustment, the tracking position is shown on the TV screen, and disappears automatically after adjustment has been completed. Use this function when performing the A/C HEAD phase adjustment.
- Picture sharpness control
  Press the "∧" button repeatedly to sharpen the picture or press the "∨" button to soften the picture.
- Stability adjustment

1) To correct picture shake during the slow motion or still mode:
   Press the "∧" or "∨" cursor button repeatedly until the picture shake is corrected.
2) To correct tracking during the still mode:
   Press the "<" or ">" cursor button repeatedly until the picture is clear.

ERROR ANNOUNCEMENT

When a malfunction occurs, the following error indicators appear on the FL display to indicate the problem when the power is turned off.

Err 1 = AL power supply has short circuited.
Err 2 = The loading motor has stopped.
(When the mechanism position detect switch is not able to read the specified code, that is to say not able to reach to the specified position within the specified time.)
Err 3 = The drum motor has stopped.
(When the drum motor does not rotate due to condensation, etc.)
Err 5 = The capstan motor has stopped.
(When the capstan motor does not rotate.)

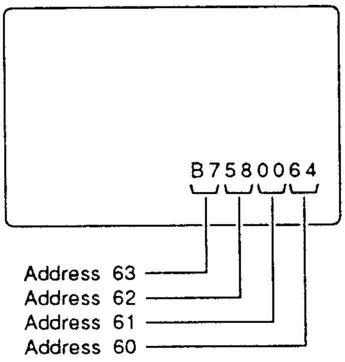
PRESETS IN THE TEST MODE

1) Engaging the "TEST MODE"

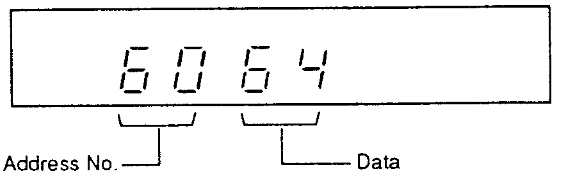
To set the VCR to the TEST MODE, press the "reset" button on the front panel first then plug in the AC power cord while pressing and holding both the "POWER" and "STOP/EJECT" buttons on the front at the same time. Next, release your fingers from both the buttons a few seconds later and press the "POWER" button.

2) Model code preset

1. Engage the "test mode". The model code will be displayed on the lower right part of the screen in 8 digit form.



2. While pressing both the "FF" and "RWD" buttons, press the "RESET" button. The address and its data will be shown in the FL display. (Keep pressing the "FF" and "RWD" buttons until model code apppears.)



3. Select the address "60" by pressing the "FF" or "RWD" button.
4. Choose the data in the address 60 column that corresponds to the model number you are working on from the following list. Set the chosen data value by pressing the "STOP" or "PLAY" button.

MODEL	MODEL CODE	ADDRESS			
		60	61	62	63
VS-G720EOH-D(Y1)	34580064	64	00	58	34
VS-G725EOH-D(Y1)	B4588064	64	80	58	B4
VS-G735EA-D	B4420024	24	00	42	B4
VS-G735EDG	B65801A4	A4	01	58	B6
VS-G735EK-N	B4548024	24	80	54	B4
VS-G735EO-D	B4500064	64	00	50	B4
VS-G735EOH-DN (Y1)	B4588064	64	80	58	B4
VS-G735EOH-DN (Y2)	B4580064	64	00	58	B4
VS-G735EOH-N (E)	B4588064	64	80	58	B4
VS-G737EOG-D	B7580064	64	00	58	B7

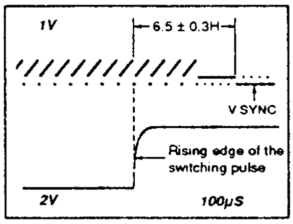
(On the FL display, B and D are indicated with small letters and E is indicated with –.)

5. Memorize the data into the EEP ROM IC by pressing the "REC" button.
6. The address "61" and its data will be shown in the FL display. Repeat the presetting (steps 4 to 5) for addresses "61", "62" and "63" in the same manner as address "60".
7. Press the "RESET" button to disengage the model code preset mode.

NOTE : This model code preset is absolutely necessary when the IC402 (EEP-ROM) on the MAIN PCB is replaced.

3) Video switching point preset

1. Engage the "test mode".
2. Connect CH-1 of an oscilloscope to VIDEO OUT and CH-2 to the TP2 (V-SWP) on the PRE AMP & Hi-Fi PCB for triggering.
3. Play back the reference tape TF-530RFS (Part No. : AT-751775). Check the seconds display of the FL display so that "1F" (center position in the tracking range) is indicated at this point. If not indicated, press the "<" or ">" button on the remote control until "1F" is indicated.
4. Press the "REC" button during playback.
5. Confirm that the switching point is positioned 6.5 ± 0.3 H before the left edge of the V-sync as shown.



NOTE:

a) Make sure that the A/C head phase adjustment has been adjusted correctly before making video switching point preset. (Refer to step 5-3-3)
b) This switching point preset is absolutely necessary after the folllowing replacements.

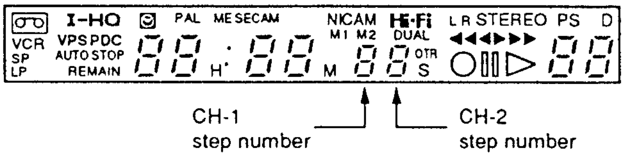
- When the video head drum (upper drum) is replaced.
- When the DRUM MOTOR PCB or DRUM MOTOR's ROTARY MAGNET (ROTARY PLATE) is replaced.
- When the SERVO/SYSCON MI-COM or EEP ROM IC (IC402) on the MAIN PCB is replaced.

4) Y REC current preset

Although the optimum Y REC current is determined each time when the I-HQ tape tuning system is operated, however centre value of the variable range should be memorized in the micro computer.

If the IC1 (AN3386NK) in the PRE AMP & Hi-Fi PCB or whole PRE AMP & Hi-Fi PCB is replaced, following preset must be performed for the proper performance.

1. Engage the test mode.
2. Set the tape speed to the "LP" mode.
3. Previously memorized step value will be appeared in the FL display in the position shown below. The CH-1's step value is displayed in the left side and the CH-2's step value is right side.

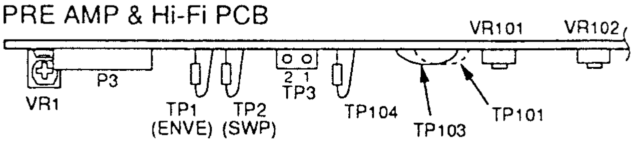


4. If the left one is not the same as right one, choose the CH-1's or CH-2's whichever the step value is larger.
5. Select the REC current voltage from the following list that is corresponded to the step value which you have choosen in step 3.

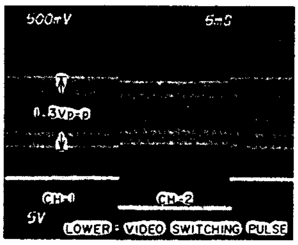
Step No. (value)	V REC VOLUME DC level	Y REC current level
0	4.5 V	0.68 Vp-p
1	4.0 V	0.82 Vp-p
2	3.5 V	1.00 Vp-p
3	3.0 V	1.15 Vp-p
4	2.5 V	1.30 Vp-p
5	2.0 V	1.45 Vp-p
6	1.5 V	1.60 Vp-p
7	1.0 V	1.75 Vp-p

6. Connect the CH-1 of an oscilloscope to the TP3 ① pin (REC CURRENT CHECK) on the PRE AMP & Hi-Fi PCB and the CH-2 to the TP2 (SWP) for triggering.

PRE AMP & Hi-Fi PCB



7. Insert a blank tape and start a recording. Adjust the VR1 on the PRE AMP & Hi-Fi PCB so that the Y REC CURRENT is the same value as choosen from the list. The switching pulse's "H" level period corresponds to CH-1 and "L" period corresponds to CH-2.



Example of CH-1 side, step No.4

8. Next, insert the I-HQ test tape "TF-556AT" (AT-751822J) and then perform tape tuning in order to memorize the data by pressing both the "I-HQ" and "REC" buttons simultenuously.
9. After this preset has been completed, proceed to next 5) "Memorization of the reference RF envelope detect voltage". Steps 4 to 6 should be performed before terminate the test mode.

5) Memorization of the reference RF envelope detect voltage (I-HQ)

For the purpose of the correct operation of the I-HQ tape tuning system, memorization of the reference RF envelope detect voltage is absolutely necessary. When the VIDEO HEAD DRUM, PRE AMP PCB or EEP ROM IC in the MAIN PCB is replaced for any reason, memorize the reference RF envelope detect voltage according to the following procedure.

1. Engage the test mode.
2. Set the tape speed to "LP mode".
3. Insert the I-HQ test tape "TF-556AT" (AT-751822J) and then perform tape tuning by pressing both the "I-HQ" and "REC" buttons simultenuously.
4. Make a recording on the I-HQ test tape for more than 1 minute and then rewind it to the point where the recording was started.
5. Play back the tape. Reference RF envelope detect voltage data in the memory is displayed in 2 digits in the hours display part of the FL display and the present envelope detect voltage data is displayed in 2 digits in the minutes display part (the data is displayed in hexadecimal numbers).
6. After the auto tracking has been activated, press the "CANCEL" button on the remote control unit. So present RF envelope detect voltage data will be transferred to the hours part's 2 digits and memorized in the EEP ROM IC.
7. Next, set the tape speed to "SP mode" and repeat the steps 3 to 5.
8. Terminate the test mode.

6) Other facilities in the test mode

1. Tracking position display

In the "SP play" mode, tracking position data can be displayed on the FL display. Data is displayed in 64 steps in hexadecimal numbers from "00" to "3F" in the seconds display part on the FL display. Pressing the "TV/VCR" button on the remote control unit during playback directly sets the tracking to the maximum "3F" position and pressing the "COUNTER RESET" button sets it to the minimum "00" position.

Pressing the "PLAY" button during playback sets tracking to the center position "1F" automatically. If "1F" does not appear even when the "PLAY" button is pressed, keep pressing the "<" or ">" cursor button on the remote control unit until "1F" is indicated and then press the "OK" button to memorize the position.

2. TIMER function confirmation

During the "test mode", the clock's minute part is advanced by a second when the power is turned off. This means that the "timer" function can be confirmed in a short time.

3. Suspension of the tape protection system

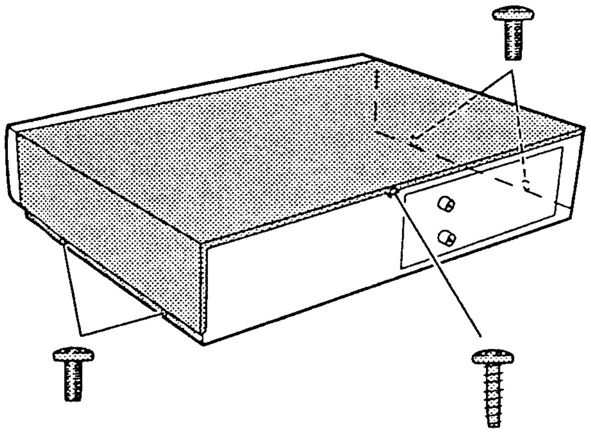
When the VCR is not in the "test mode", the "REC PAUSE" mode will be released after 30 minutes in order to protect the tape. The "STILL" mode will also be released after 5 minutes. During the "test mode", however this tape protection system will not operate.

※ Video head rotation will stop 5 min. after the "REC PAUSE" mode has been engaged even during the test mode.

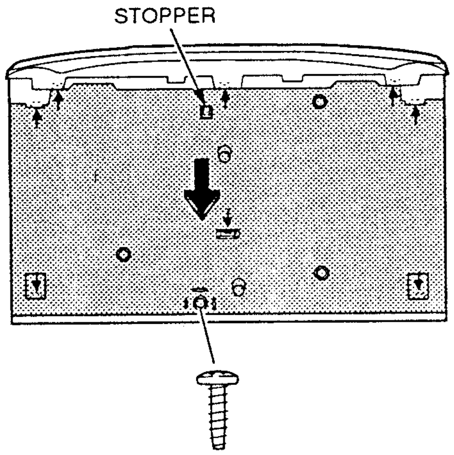
I. DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in the reverse order.
When reattaching the FRONT PANEL, hold the cassette loading slot door in the upright (open) position.

1. Removal of UPPER COVER

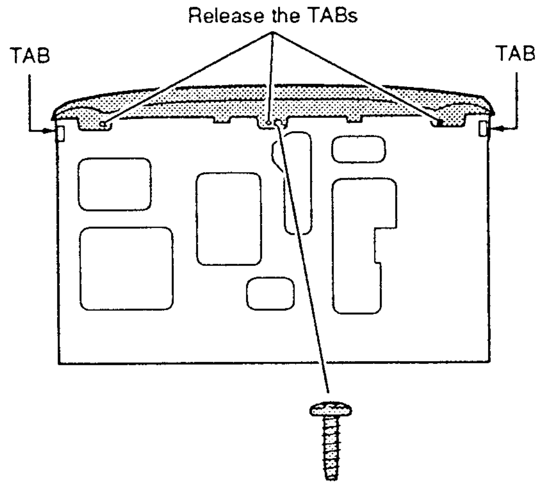


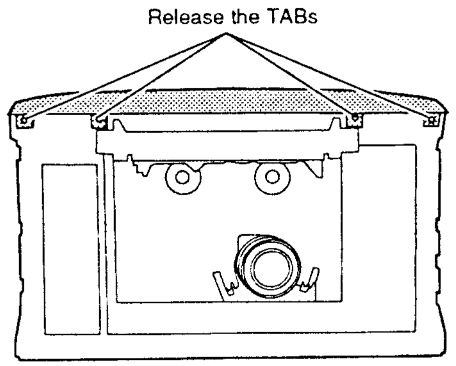
2. Removal of BOTTOM COVER



While pressing the stopper downward, slide the Bottom cover in the direction of the arrow for removal.
When replacing the Bottom cover, make sure it is secured with the tabs.

3. Removal of FRONT PANEL





Disconnect the P143 connector on the FRONT PCB that is attached on the FRONT PANEL BLOCK or P343 connector on the IN/OUT (C) PCB.

II. PRINCIPAL PARTS LOCATION

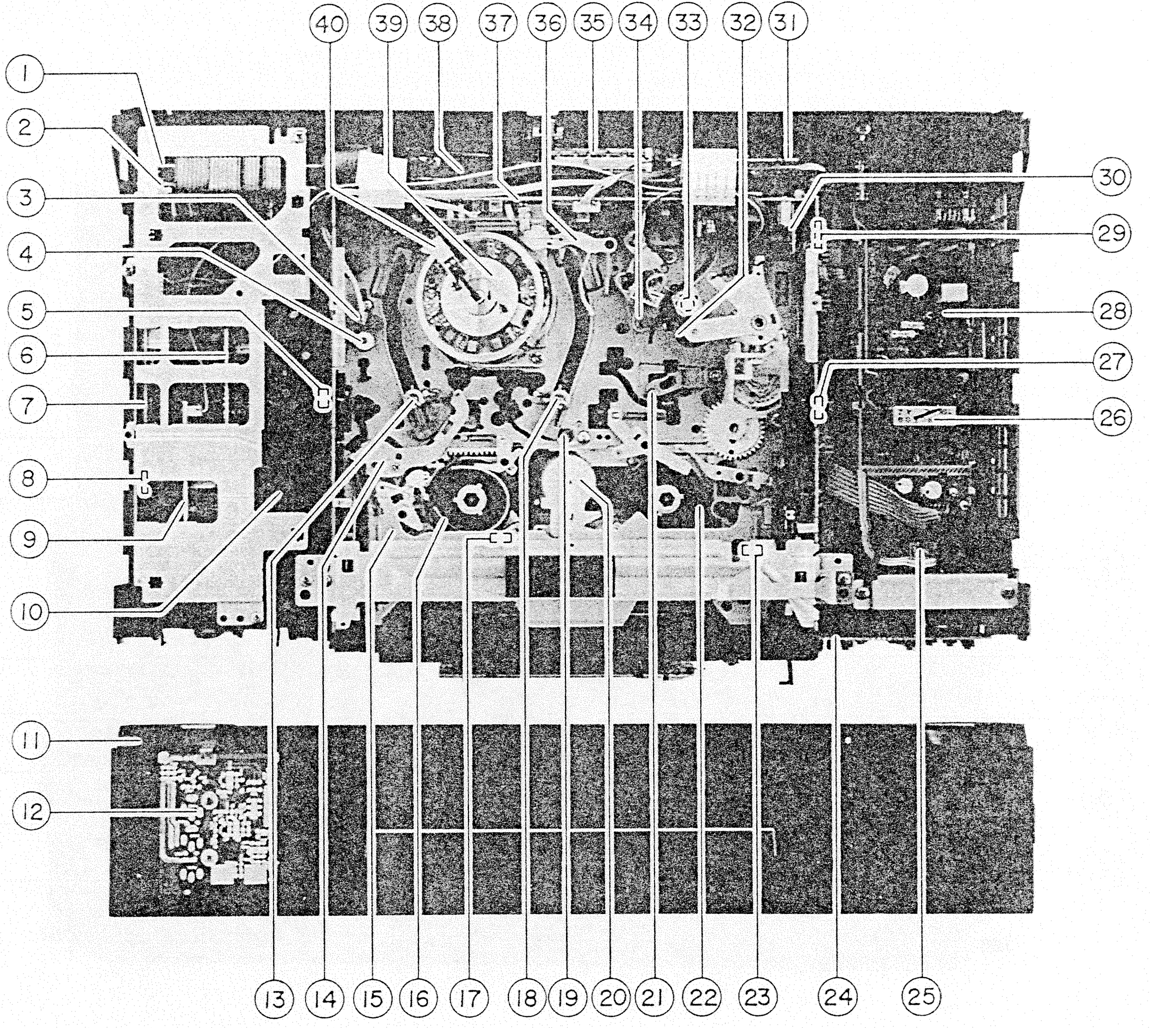


Fig. 2-1 Top view

1. IN/OUT (A) PCB
2. IN/OUT (B) PCB
3. FULL TRACK ERASE HEAD
4. SUPPLY TAPE GUIDE
5. END SENSOR
6. CDR PCB (EOG-D only)
7. IN/OUT (C) PCB
8. SECAM DET & NTSC PCB (EDG only)
9. D-MULTI PCB (EA-D, EO-D, EOG-D, EOH-D only)
   D-NICAM PCB (EK-N, EOH-N/DN only)
10. MAIN PCB
11. FRONT PANEL BLOCK
12. FRONT PCB
13. SUPPLY LOADING LEADER
14. TENSION ARM
15. CASSETTE LOAD BLOCK
16. SUPPLY REEL TABLE
17. REC SAFETY SWITCH
18. TAKE UP LOADING LEADER
19. SENSOR LED
20. IDLER PART
21. REVIEW ARM PART
22. TAKE UP REEL TABLE
23. S-VHS TAPE DETECT SWITCH
24. OPERATION PCB
25. TR (B) PCB
26. POWER TRANSFORMER
27. START SENSOR
28. POWER SUPPLY PCB
29. TR (A) PCB
30. OSC PCB
31. VIF UNIT
32. PINCH ROLLER
33. CAPSTAN MOTOR BLOCK
34. AUDIO CONTROL/SIDE ERASE HEAD
35. TUNER UNIT
36. HEAD CLEANER BLOCK
37. PRE AMP & Hi-Fi PCB
38. RF CONVERTER UNIT
39. VIDEO HEAD DRUM BLOCK
40. EARTH BRUSH

※ The photograph on this page is of model VS-G737EOG-D.

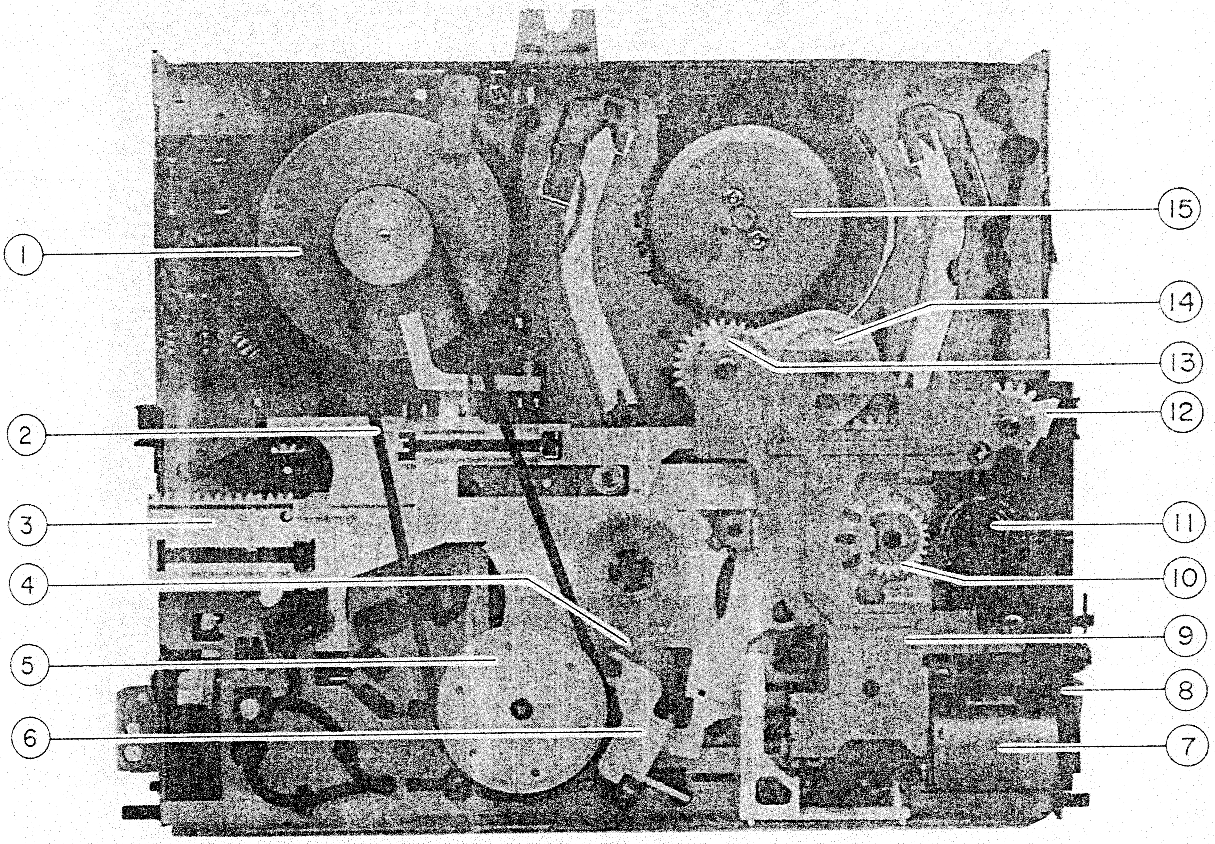


Fig. 2-2 Bottom view

1. CAPSTAN MOTOR BLOCK
2. CAPSTAN BELT
3. PINCH SLIDER
4. GEAR COUPLING BLOCK
5. CLUTCH DISK PART
6. COUPLING ARM
7. LOADING MOTOR
8. LM/MS PCB
9. LOADING DRIVE BLOCK
10. CAM SLIDER GEAR
11. MODE DETECT SWITCH
12. FRONT LOADING GEAR
13. TOGGLE (T) GEAR BLOCK
14. TOGGLE (S) GEAR BLOCK
15. DRUM MOTOR BLOCK

III. VIEWING THE OPERATION OF THE BOTTOM SIDE OF THE MECHANISM BLOCK

※ In case you want to check the operation of the bottom side of the mechanism block, proceed as follows.

3-1. REMOVAL OF THE FRONT PANEL

1) Remove the FRONT PANEL (refer to step 1-3).

3-2. REMOVAL OF THE MECHANISM BLOCK

1) Remove the three Ⓐ screws on the bottom side as shown in Fig. 3-1.

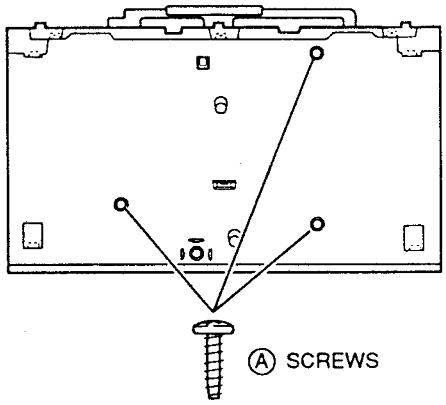


Fig. 3-1

2) Remove the two Ⓑ screws and the Ⓒ screw which retain the MECHANISM BLOCK and the EARTH PLATE as shown in Fig. 3-2.

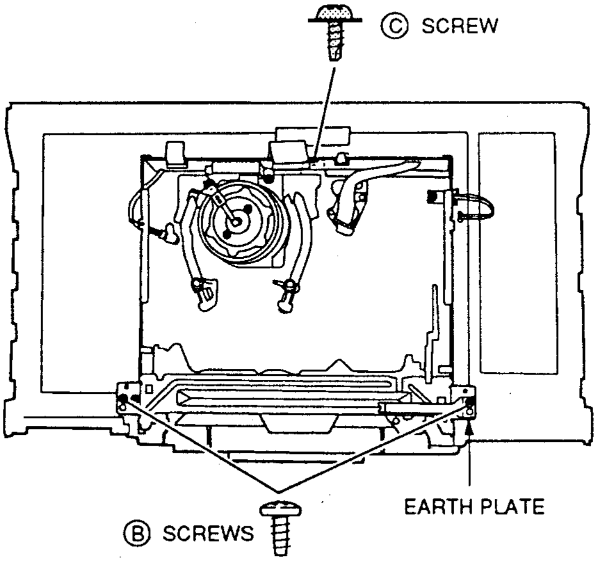


Fig. 3-2

3) Remove the MECHANISM BLOCK and place a video cassette which is no longer needed or something else that is substitutable (must be made of insulated material) on the MAIN PCB.
4) Place the MECHANISM BLOCK on the tape etc., standing it on end as shown in Fig. 3-3 with care not to damage the flat cables on the PRE AMP & Hi-Fi PCB.

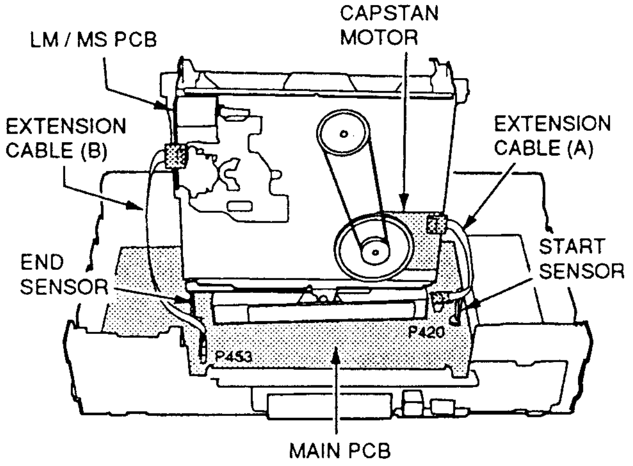


Fig. 3-3

3-3. CONNECTING THE EXTENSION CABLE

1) Connect the two extension cables (which are provided as the service jig) between the CAPSTAN MOTOR BLOCK and the P420 on the MAIN PCB, the LM/MS PCB and P453 on the MAIN PCB.

NOTE : The "FRONT" mark on the extension cable (A) PCB must be facing front when connecting.

3-4. TURNING THE POWER ON

1) Place a cover (a ball point pen's cap etc.) on the start sensor as shown in Fig. 3-3 in order to intercept the light to the sensor. The cap must be black or metal.
2) Engage the test mode (refer to in the information section, "PRESETS IN THE TEST MODE").
3) Remove the cover on the start sensor immediately after the cassette tape is inserted in the ejector so that the tape is drawn down automatically.
4) Cover both the start and end sensors at the same time with the covers right before the cassette tape reaches the lower position.
   Normal playback and CUE, REVIEW modes can be operated in this condition.
5) In case you want to change the tape, eject the present tape by pressing the "EJECT" button then remove the cover on the end sensor and repeat the steps 3) to 4).

IV. DISASSEMBLY OF THE MAIN COMPONENTS

4-1. REMOVAL OF THE MECHANISM BLOCK

NOTE: Some parts in the mechanism block require complete removal of the mechanism block from the chassis when performing servicing.
Set the loading mechanism to the "EJECT" position by pressing the "EJECT" button, then disconnect the AC power plug from the AC socket before proceeding. This sets the loading mechanism to the "reference position".

4-1-1. Removal of the FRONT PANEL BLOCK

1) Remove the FRONT PANEL BLOCK (refer to step 1-3 on page 8)

4-1-2. Removal of the PRE AMP & Hi-Fi PCB

1) Detach the OSC PCB from the PRE AMP & Hi-Fi PCB by pulling it forward.

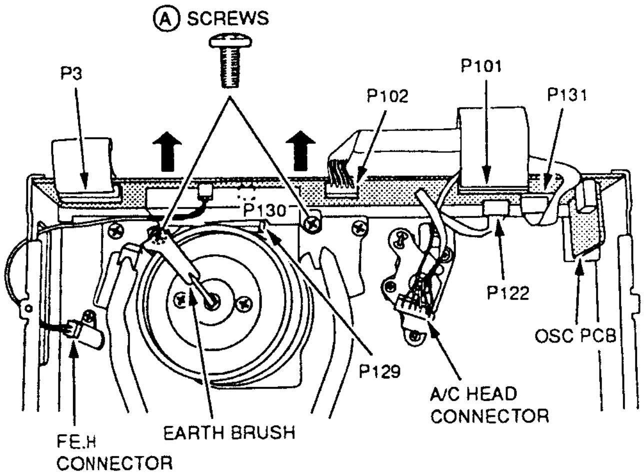


Fig. 4-1

2) Disconnect the two flat cables from the P3 and P101 connectors respectively and then disconnect the P102, P122 and P131 connectors.
3) Disconnect the connector on the A/C HEAD and FULL TRACK ERASE HEAD.
4) Remove one of the Ⓐ screw and remove the EARTH BRUSH.
5) Remove the other Ⓐ screw, then press the lower side of the shield case in the direction of the arrow as shown in Fig. 4-1.
6) Proceed in the reverse order for installation. Carefully align the connectors between the one on the DRUM MOTOR PCB, one on the LOWER DRUM and P129, P130 connectors on the PRE AMP & Hi-Fi PCB when re-attaching.
To make insertion easier, remove the two mechanism block retaining screws on the bottom as shown in Fig. 4-2 and then while pulling the back part of the mechanism block upward, connect the connectors properly.

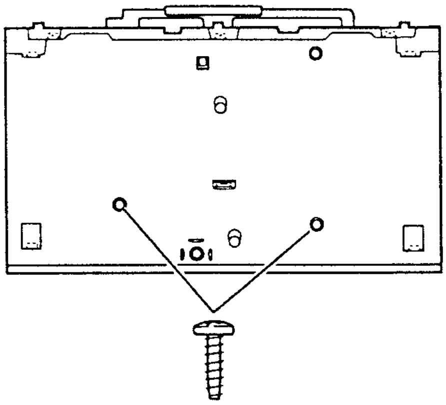


Fig. 4-2

4-1-3 Removal of the TR (A) PCB

1) Remove the Ⓑ transistor retaining screw, then remove the TR (A) PCB from the MECHANISM BLOCK.

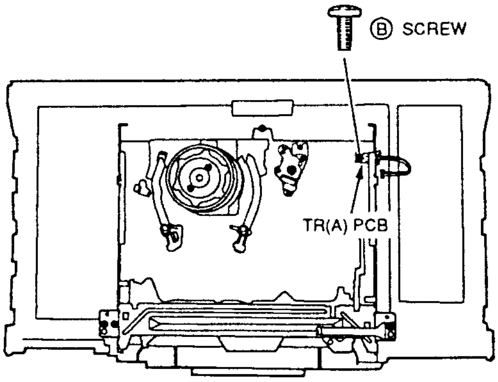


Fig. 4-3

4-1-4. Removal of the MECHANISM BLOCK

1) Remove the three retaining screws on the bottom (refer to Fig. 3-1 on page 11).
2) Remove the two Ⓓ screws and the Ⓔ screw which retain the MECHANISM BLOCK and the EARTH PLATE as shown in Fig. 4-4.

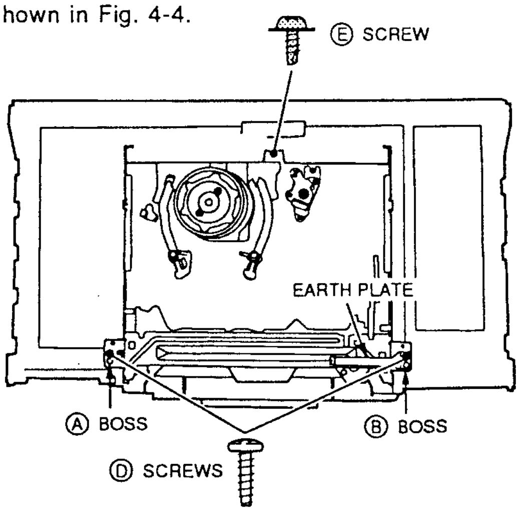


Fig. 4-4

3) Pull up the MECHANISM BLOCK carefully for detaching it from the chassis and the MAIN PCB.

4-1-5. Installation of the MECHANISM BLOCK

1) Carefully align the Ⓐ and Ⓑ bosses on the chassis with their corresponding holes on the MECHANISM BLOCK and then tighten the three screws (refer to Fig. 4-4).
2) Proceed in the reverse order of 4-1-1 to 4-1-3 for installation.

4-2. REMOVAL OF THE EJECTOR BLOCK

4-2-1. Removal of the CASSETTE LOAD BLOCK

1) Remove the two Ⓐ screws on the UPPER PLATE, as shown in Fig. 4-5 then remove the UPPER PLATE.

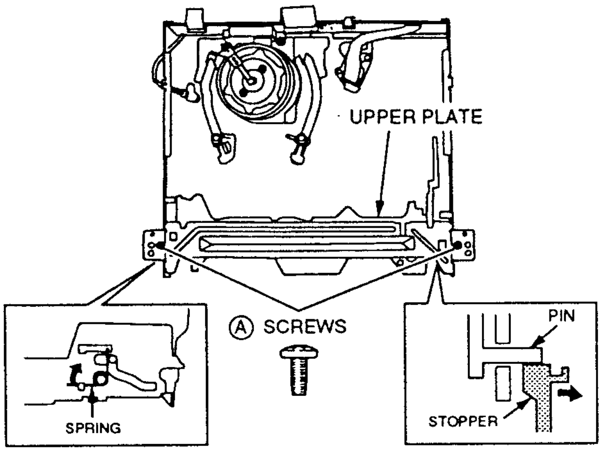


Fig. 4-5

2) Unhook the spring and remove it as shown in Fig. 4-5.
3) While pressing the right STOPPER in the direction of the arrow (refer to Fig. 4-5), gently remove the right side pin of the CASSETTE LOAD BLOCK from the rail by pulling it in the forward direction. Next, remove the left side pin in the same manner, then remove the CASSETTE LOAD BLOCK. To avoid damaging the pins of the CASSETTE LOAD BLK and the rail of the MECHA. FRAME, do not use excessive force when removing the CASSETTE LOAD BLK.

4-2-2. Removal of the LOADING ARM BLK

1) Release the stopper on the right side end of the LOADING ARM BLK's shaft (refer to Fig. 4-6) by pressing the stopper tab with a flat head (—) screwdriver. Then remove the shaft's right end from the bracket.

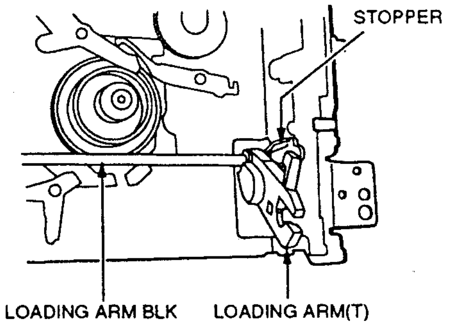


Fig. 4-6

2) Hold the LOADING ARM (T) and then pull out the shaft's left end from the bracket. Take special care when removing it to avoid damaging the pins (refer to Fig. 4-6).

4-2-3. Reassembling

1) Proceed in the reverse order of 4-2-1 to 4-2-2 for installation.

4-3. REMOVAL OF THE MODE DETECT SWITCH

Before proceeding with removal of the MODE DETECT SWITCH, the loading mechanism must be set to the "reference" position. If it has not already been set, use the following procedure to set the reference position.

※ Connect a 6V battery to the loading motor until both the cam slider gear and mode detect switch reach the reference position (refer to Fig. 4-8).

4-3-1. Removal of the MODE DETECT SWITCH

1) Unsolder the 5 leads of the mode detect switch.

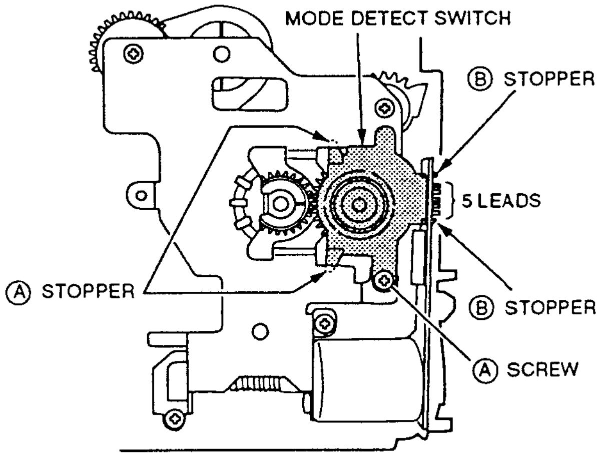


Fig. 4-7

2) Remove the Ⓐ screw.
3) While releasing the two Ⓐ stoppers and two Ⓑ stoppers, carefully remove the MODE DETECT SWITCH by pulling it up and to the left.

4-3-2. Installation of the MODE DETECT SWITCH

1) Install the mode detect switch in the reverse order of 4-3-1. When mounting the mode detect switch, align the mode detect switch's Ⓐ mark with the Ⓑ mark on the cam slider gear as shown in Fig. 4-8.

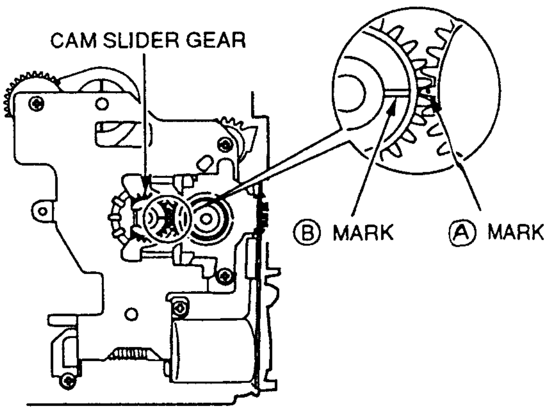


Fig. 4-8

4-4. DISASSEMBLY OF THE LOADING DRIVE BLOCK

※ Set the loading mechanism to the "reference" position. Refer to 4-3, "REMOVAL OF THE MODE DETECT SWITCH" before proceeding.

4-4-1. Removal of the LOADING DRIVE BLOCK

1) Remove the MODE DETECT SWITCH (refer to 4-3-1 "removal of the MODE DETECT SWITCH") if necessary.
2) Remove the Ⓐ, Ⓑ, Ⓒ and Ⓓ screws then remove the LOADING DRIVE BLOCK as shown in Fig. 4-9.

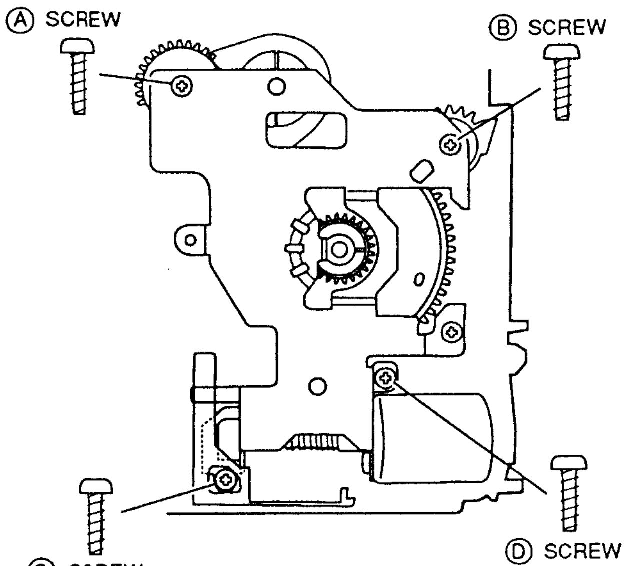

Ⓐ SCREW
Ⓑ SCREW
Ⓒ SCREW
Ⓓ SCREW

Fig. 4-9

4-4-2. Replacement of the LOADING MOTOR

1) Remove the LOADING DRIVE BLOCK (refer to 4-4-1)
2) Unsolder the two leads of the LOADING MOTOR.
3) Remove the two installation screws.

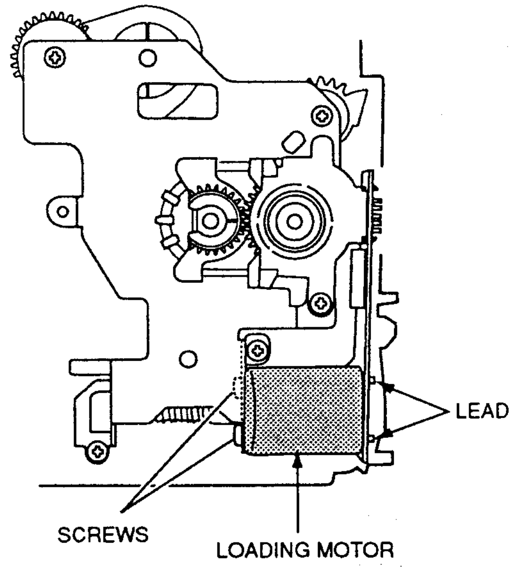

LEAD
SCREWS
LOADING MOTOR

Fig. 4-10

4) Reassemble in the reverse order for installation.

4-5. REASSEMBLY OF THE LOADING MECHANISM BLK

4-5-1. Position of the TOGGLE GEARs (T) and (S)

1) Set the TOGGLE GEARs (T) and (S) to the unloaded position with your fingers. Align the Ⓐ mark on the TOGGLE GEAR (S) with the Ⓐ hole of the TOGGLE GEAR (T) as shown in Fig. 4-11.

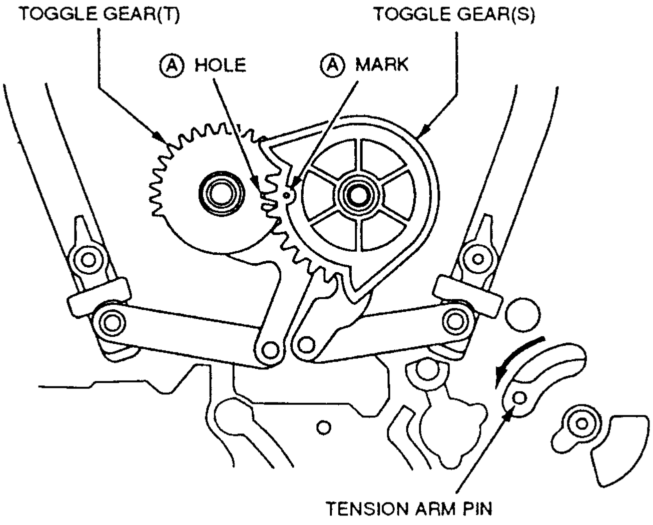

TOGGLE GEAR(T)
TOGGLE GEAR(S)
Ⓐ HOLE
Ⓐ MARK
TENSION ARM PIN

Fig. 4-11

NOTE : When positioning the TOGGLE GEAR (S), the TENSION ARM's pin should be moved in the direction of the arrow before placing the TOGGLE GEAR (S) onto its shaft.

4-5-2. Installation of the CAM SLIDER GEAR & FRONT LOADING GEAR

1) Attach the WORM WHEEL GEAR as shown in Fig. 4-12.

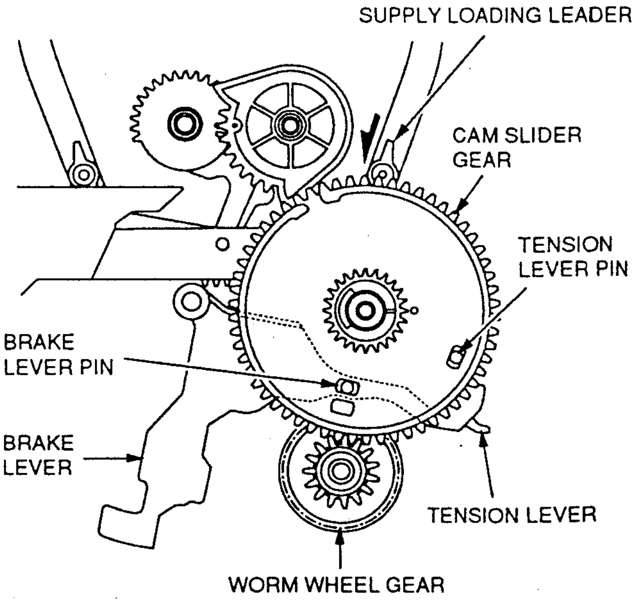

SUPPLY LOADING LEADER
CAM SLIDER GEAR
TENSION LEVER PIN
BRAKE LEVER PIN
BRAKE LEVER
TENSION LEVER
WORM WHEEL GEAR

Fig. 4-12

2) Place the CAM SLIDER GEAR on the shaft and adjust the position of the BRAKE LEVER and TENSION LEVER so that both pins appear through the holes on the CAM SLIDER GEAR as shown in Fig. 4-12. When inserting the CAM SLIDER GEAR onto its shaft, press the SUPPLY LOADING GEAR slightly in the direction of the arrow to make installation easy.

3) Attach the FRONT LOADING GEAR so that the Ⓐ mark on the FRONT LOADING GEAR aligns with the Ⓑ mark on the FRONT LOADING SLIDER and that the Ⓒ mark on the FRONT LOADING GEAR aligns with the Ⓓ mark on the CAM SLIDER GEAR as shown in Fig. 4-13.

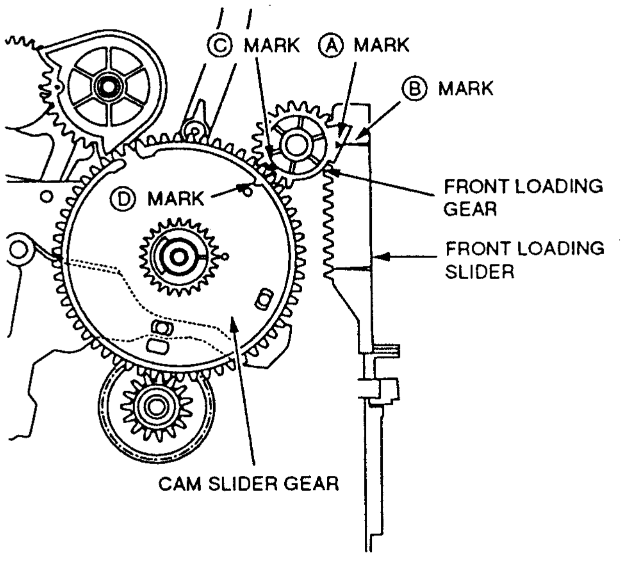

Ⓒ MARK
Ⓐ MARK
Ⓑ MARK
Ⓓ MARK
FRONT LOADING GEAR
FRONT LOADING SLIDER
CAM SLIDER GEAR

Fig. 4-13

4-5-3. Installation of the LOADING BLOCK & MODE DETECT SWITCH

1) Install the LOADING DRIVE BLOCK as shown in Fig. 4-14. Align the Ⓐ mark on the MODE DETECT SWITCH's gear with the Ⓑ mark on the CAM SLIDER GEAR when installing.

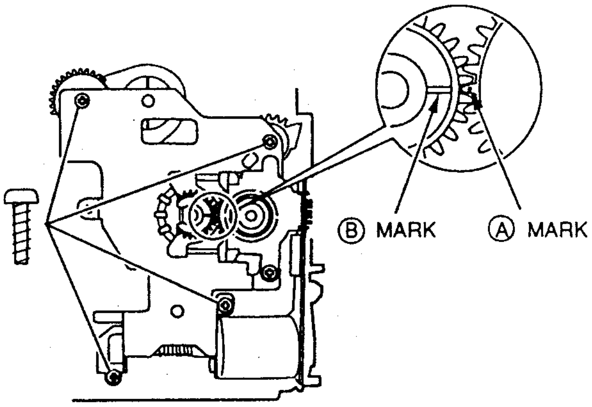


Fig. 4-14

4-6. REPLACEMENT OF THE DISK CLUTCH BLOCK & GEAR COUPLING BLOCK

1) Remove the SLIT WASHER as shown in Fig. 4-15.

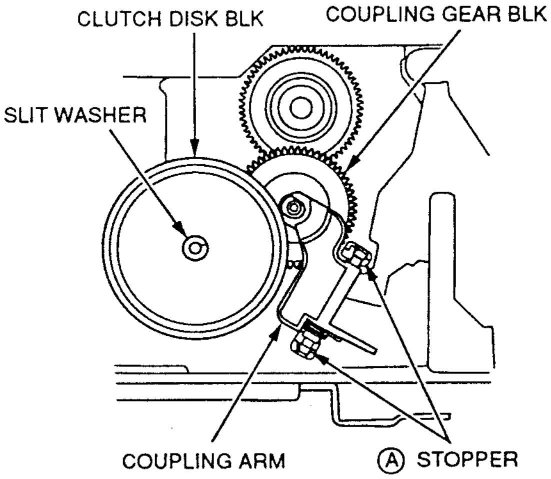

CLUTCH DISK BLK
COUPLING GEAR BLK
SLIT WASHER
COUPLING ARM
Ⓐ STOPPER

Fig. 4-15

2) Release the two Ⓐ stoppers of the COUPLING ARM and pull up the CLUTCH DISK BLOCK and COUPLING GEAR BLOCK at the same time.

3) Reassemble in the reverse order for installation.

4-7. REPLACEMENT OF THE REVIEW BRAKE PART & IDLER PART

4-7-1. Replacement of the REVIEW BRAKE PART

1) Un hook the Ⓐ spring, then release the stopper of the REVIEW BRAKE PART and remove it.

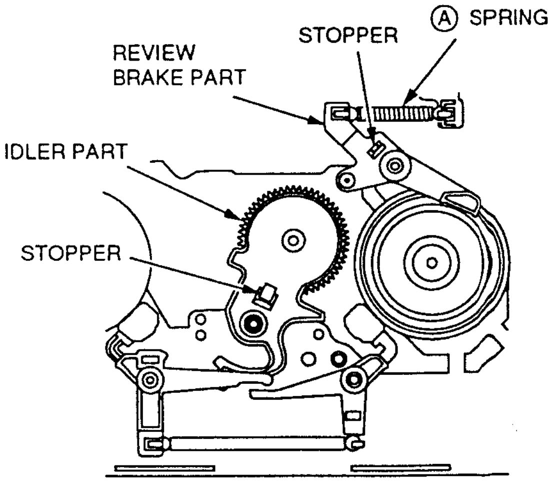

Ⓐ SPRING
STOPPER
REVIEW BRAKE PART
IDLER PART
STOPPER

Fig. 4-16

2) Reassemble in the reverse order for installation.

4-7-2. Replacement of the IDLER PART

1) Remove the CASSETTE LOAD BLOCK & LOADING ARM BLOCK. (Refer to 4-2, "Removal of the EJECTOR BLOCK".)
2) Release the stopper of the IDLER PART and remove it as shown in Fig. 4-16.
3) Reassemble in the reverse order for installation.

4-8. REPLACEMENT OF THE PINCH ROLLER BLOCK

1) Remove the Ⓐ spring, then remove the PINCH ROLLER ARM BLOCK by turning it in the direction of the arrow and pulling it upward as shown in Fig. 4-17.

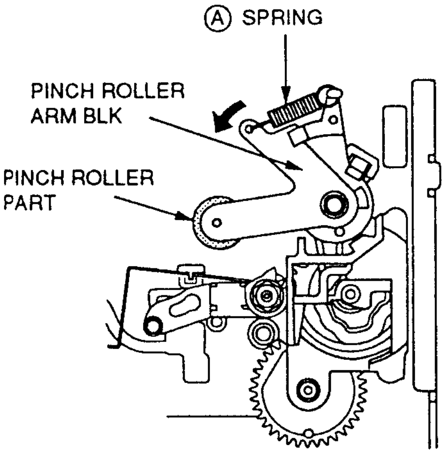

Ⓐ SPRING
PINCH ROLLER ARM BLK
PINCH ROLLER PART

Fig. 4-17

2) Reassemble in the reverse order for installation.

4-9. DISASSEMBLY OF THE PINCH LEVER & PINCH HOLDER

4-9-1. Removal of the PINCH LEVER and PINCH HOLDER

1) Remove the two Ⓐ screws then remove the PINCH LEVER and PINCH HOLDER.

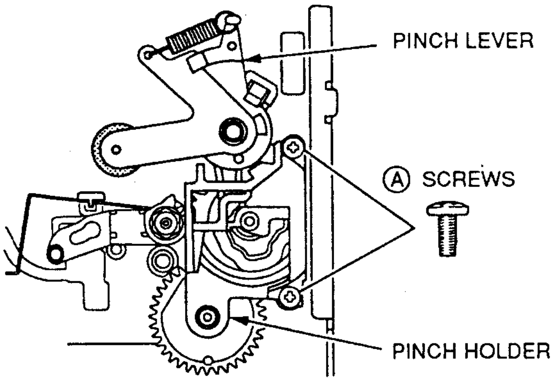

PINCH LEVER
Ⓐ SCREWS
PINCH HOLDER

Fig. 4-18

4-9-2. Installation of the PINCH LEVER and PINCH HOLDER

1) Align the Ⓐ hole on the PINCH SLIDER with the Ⓐ mark on the PINCH GEAR through the hole on the chassis as shown in Fig. 4-19.

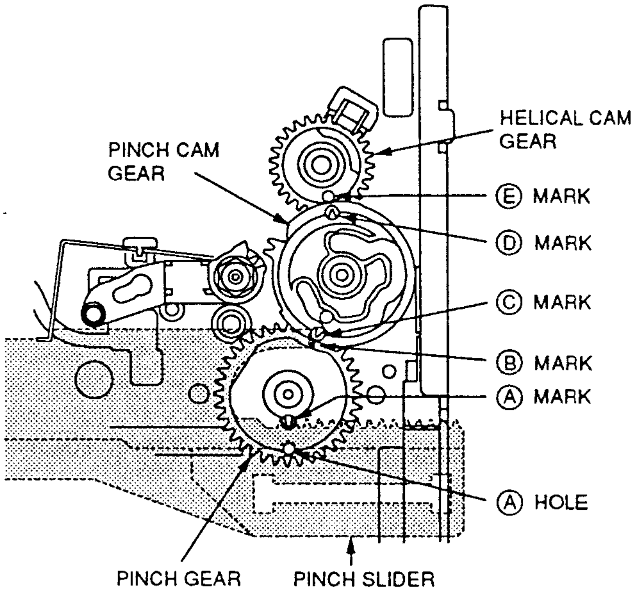

HELICAL CAM GEAR
PINCH CAM GEAR
Ⓔ MARK
Ⓓ MARK
Ⓒ MARK
Ⓑ MARK
Ⓐ MARK
Ⓐ HOLE
PINCH GEAR
PINCH SLIDER

Fig. 4-19

2) Align the Ⓑ mark on the PINCH GEAR with the Ⓒ mark on the PINCH CAM GEAR and the Ⓓ mark on the PINCH CAM GEAR with the Ⓔ mark on the HELICAL CAM GEAR as shown in Fig. 4-19.
3) Install the PINCH LEVER and PINCH HOLDER in the reverse order.

4-10. REPLACEMENT OF THE CAPSTAN MOTOR BLOCK

1) Remove the three Ⓐ screws as shown in Fig. 4-20.

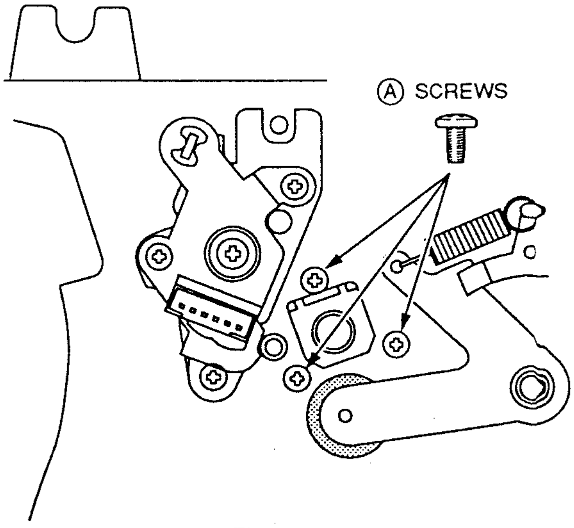


Fig. 4-20

2) Remove the CAPSTAN BELT.

3) Remove the Ⓑ screw and then remove the CAPSTAN MOTOR HOLDER.

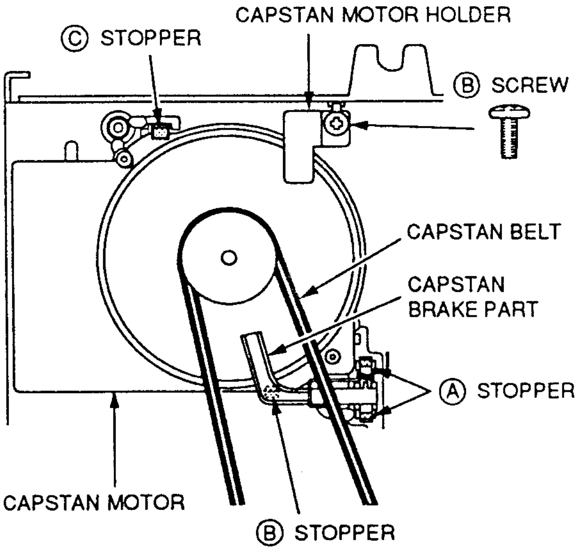

Ⓒ STOPPER
CAPSTAN MOTOR HOLDER
Ⓑ SCREW
CAPSTAN BELT
CAPSTAN
BRAKE PART
Ⓐ STOPPER
CAPSTAN MOTOR
Ⓑ STOPPER

Fig. 4-21

4) Release the two Ⓐ stoppers and remove the CAPSTAN BRAKE PART.

5) Remove the CAPSTAN MOTOR BLOCK while releasing the Ⓑ and Ⓒ stoppers.

6) Proceed in the reverse order for installation.

4-11. DRUM MOTOR PC BOARD REPLACEMENT

1) Remove the two Ⓐ screws on the ROTARY PLATE and then remove it.
(If the PRE AMP & Hi-Fi PCB is not removed yet, remove it first before removing the Ⓐ screws. Refer to 4-1-2, "Removal of the PRE AMP & Hi-Fi PCB".)

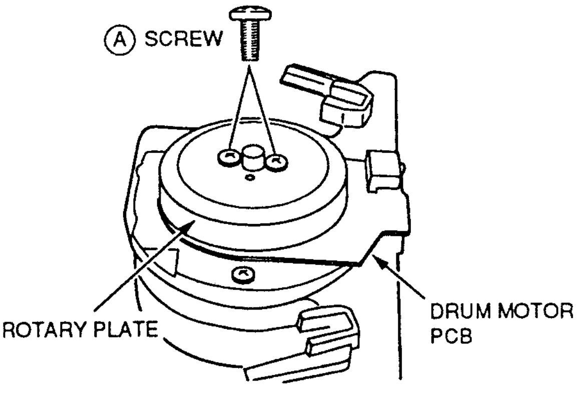

Ⓐ SCREW
ROTARY PLATE
DRUM MOTOR
PCB

Fig. 4-22

2) Remove the three Ⓑ screws which retain the DRUM MOTOR PCB and replace it.

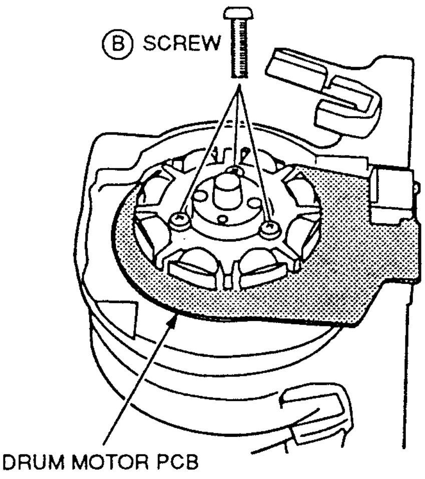

Ⓑ SCREW
DRUM MOTOR PCB

Fig. 4-23

3) Attach the ROTARY PLATE to the collar preload so that the rotary plate Ⓒ hole and collar preload Ⓓ hole line up.

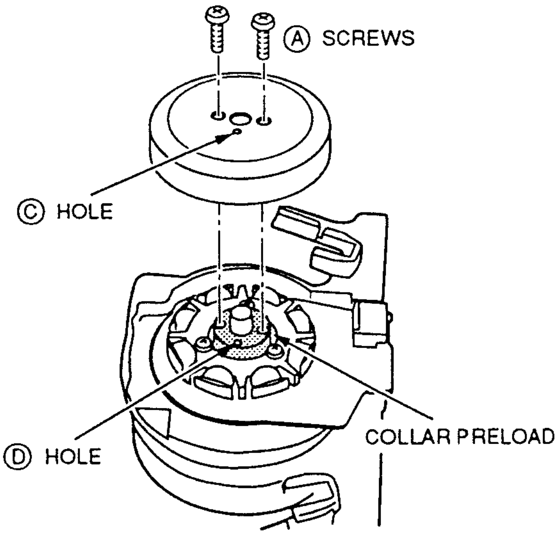

Ⓐ SCREWS
Ⓒ HOLE
Ⓓ HOLE
COLLAR PRELOAD

Fig. 4-24

4) After replacement, PB switching point adjustment (INFORMATION, PRESET IN THE TEST MODE, #3) is absolutely necessary for the proper performance.

4-12. REPLACEMENT OF THE UPPER DRUM

4-12-1. Removal of the UPPER DRUM

1) Unsolder the twelve relay leads and remove the two upper drum fixing screws as shown in Fig. 4-25.

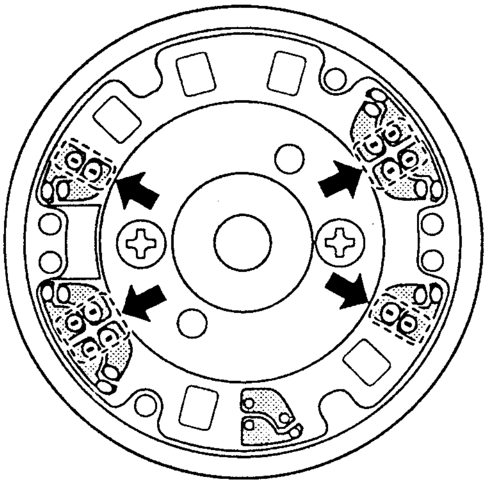


Fig. 4-25

2) Gently lift and remove the UPPER DRUM.

4-12-2. Installation of the UPPER DRUM

1) Attach the UPPER DRUM to the LOWER DRUM ROTOR, so that the upper drum's white mark and lower drum rotor's white mark line up, as shown in Fig. 4-26.

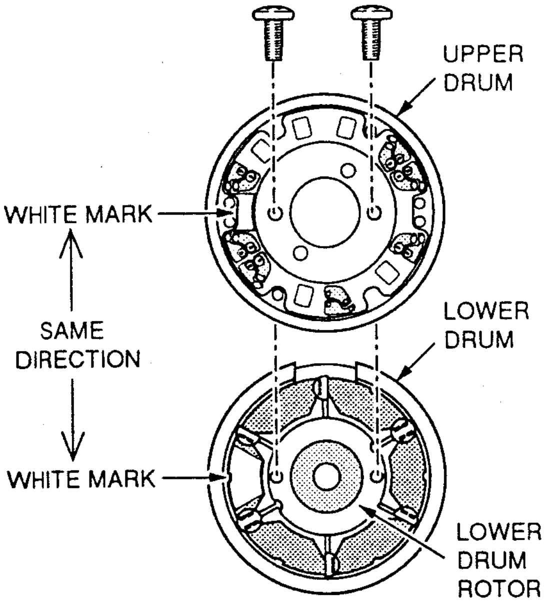


Fig. 4-26

NOTE : Because height precision is required for proper performance, and because head tips are fragile, the following points should be noted when replacing the UPPER DRUM BLOCK.

(a) Do not loosen the set screw on the collar preload.
(b) Before fixing, use alcohol to clean both surfaces where the upper drum and the rotary transformer meet.
(c) If the UPPER DRUM can not be inserted on to the shaft easily during installation, clean the hole in the UPPER DRUM with alcohol and put a little oil on the shaft.
(d) Make sure that the upper drum fixing screw holes, on the rotary transformer part, and the upper drum fixing screw penetration holes match exactly before inserting the fixing screws.
(e) Tighten the two upper drum fixing screws alternately and gradually.

4-12-3. After replacement

After replacement, the following adjustments are necessary for the proper performance.

1) Control head phase adjustment. (MECHANICAL ADJUSTMENT 5-3-3.)
2) PB switching point adjustment. (INFORMATION, PRESET IN THE TEST MODE #3)
3) ENV. DET (I-HQ) adjustment. (INFORMATION, PRESET IN THE TEST MODE #5)
4) Video head REC current adjustment. (VI. ELECTRICAL ADJUSTMENT Steps 5 & 6)

4-13. REMOVAL OF THE POWER SUPPLY PCB

1) Disconnect the P2 connector on the POWER SUPPLY PCB as shown in Fig. 4-27.

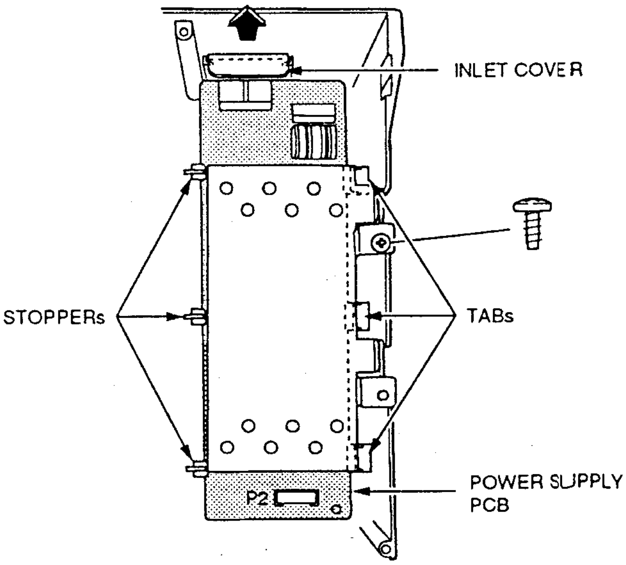


Fig. 4-27

2) Remove the shield cover retaining screw.
3) While pressing the tabs located at the bottom side in the direction of the arrow, remove the INLET COVER by pulling it up.

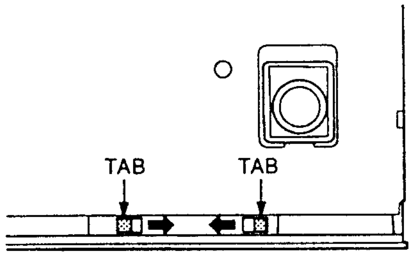


Fig. 4-28

4) While releasing the three tabs, pull up the right side of the POWER SUPPLY PCB carafully then remove the POWER SUPPLY PCB from the chassis as shown in Fig. 4-27.
5) Proceed in the reverse order for installation.

4-14. REMOVAL OF THE MAIN PCB

4-14-1.Removal of the OPERATION PCB

1) Remove the FRONT PANEL BLOCK (refer to step 1-3 on page 8).
2) While releasing the three tabs, pull out the upper side of the OPERATION PCB and angling it at a 45° angle as shown in Fig. 4-29.

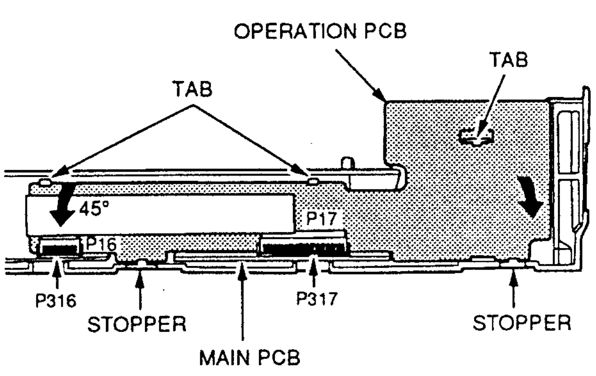


Fig. 4-29

3) Carefully disconnect the P16 and P17 connectors which joins the OPERATION PCB and MAIN PCB by pulling the OPERATION PCB outward in the 45° angle direction.
4) Proceed in the reverse order for installation.

4-14-2.Removal of the MAIN PCB

1) Remove the MECHANISM BLOCK (refer to 4-1 on page 12).
2) Disconnect the P2 connector on the POWER SUPPLY PCB and P403 connector on the MAIN PCB.
3) Remove the PCB HOLDER on the IN/OUT (C) PCB.
4) Remove the BOTTOM COVER retaining screw (refer to step 1-2 on page 8).
5) Lift up the REAR JACK PANEL by pressing the two stoppers in the direction of the arrows as shown in Fig. 4-30.

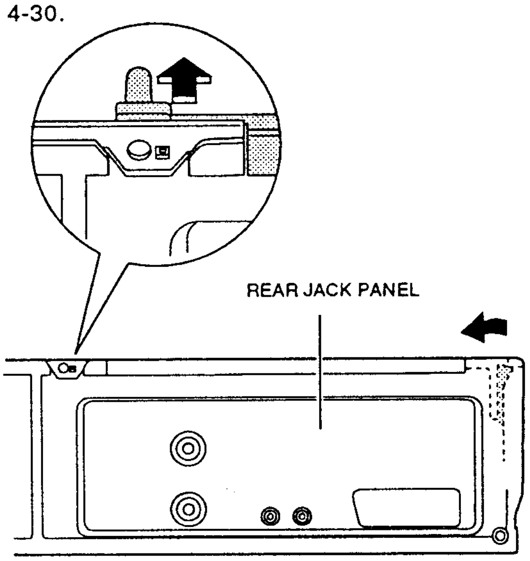


Fig. 4-30

6) Remove the MAIN PCB retaining screw, then carefully remove the MAIN PCB from the chassis while releasing the four tabs as shown in Fig. 4-31.

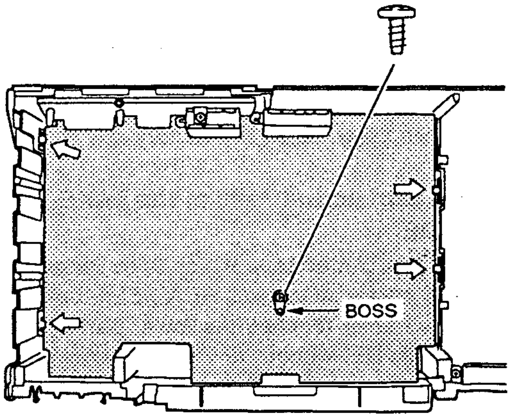


Fig. 4-31

V. MECHANICAL ADJUSTMENT

5-1. BACK TENSION ADJUSTMENT

1) Prepare a video cassette tape which you no longer need. Remove both tape reels and the tape protection cover from the cassette tape. Next, cover the video cassette's left and right detection holes with black adhesive tape.
2) Engage the playback mode using with a tapeless tape.
3) Confirm the distance between the three marks (lines) on the TENSION ARM and the Ⓐ mark on the MECHA. CHASSIS so that the Ⓐ mark aligns with the center line on the TENSION ARM as shown in Fig. 5-1.
4) If the result is not satisfactory, eject the tape and adjust the TENSION ADJUST repeatedly until a satisfactory result is achieved.

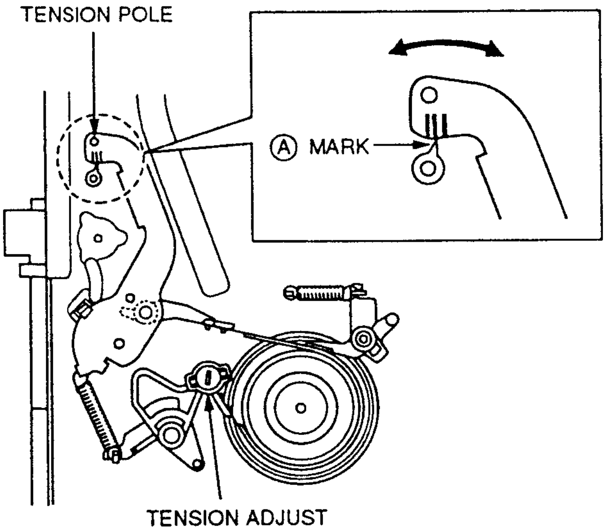


Fig. 5-1

5-2. TAPE TRANSPORT ADJUSTMENTS

NOTE : The following adjustments are required only when an irregularity is found, since these adjustments are precisely set at the factory.

5-2-1. Tape curl adjustment at the TAKE-UP TAPE GUIDE

1) Play back a recorded tape which is no longer needed.
2) Turn the Ⓐ screw on the A/C HEAD BLK, until the edge of the tape barely touches the lower part of the TAKE UP TAPE GUIDE, without any curl or wrinkle.

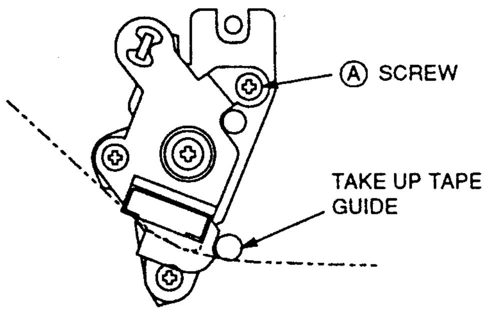
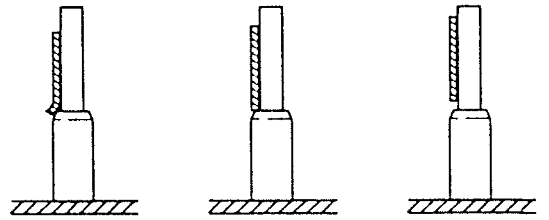


Fig. 5-2

(TAKE-UP TAPE GUIDE)



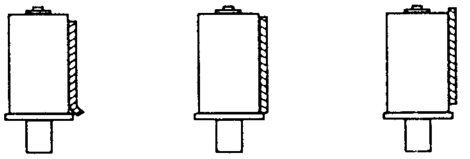
(a) INCORRECT (b) CORRECT (c) INCORRECT

Fig. 5-3

3) Once the Ⓐ screw is adjusted, A/C HEAD height and azimuth adjustment is required. (Refer to 5-3. A/C HEAD POSITION ADJUSTMENT.)

5-2-2. Tape curl adjustment at the SUPPLY TAPE GUIDE

Confirm that the lower edge of the tape barely touches the lower part of the SUPPLY TAPE GUIDE, without any curl or wrinkle as shown in Fig. 5-4a. If necessary, bend the neck part of the TENSION ARM in the Ⓐ or Ⓑ direction slightly until a satisfactory result is achieved.



(a) INCORRECT (b) CORRECT (c) INCORRECT

Fig. 5-4a

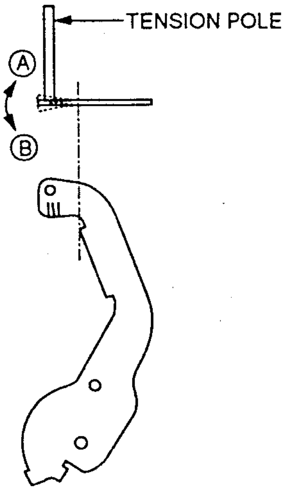


Fig. 5-4b

5-2-3. REVIEW ARM height adjustment

1) Play back the last part of an E-240 (T-160) tape and set the unit to the REVIEW mode by pressing the REW button. (Remove the tape protection cover to make the adjustment easier.)

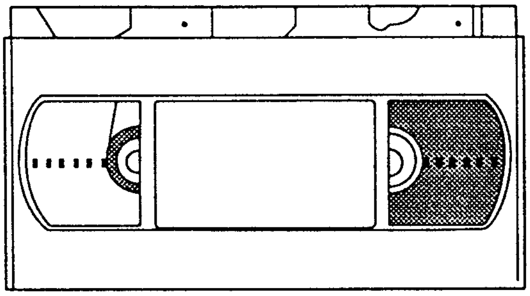


Fig. 5-5

2) Turn the REVIEW ARM height Ⓐ nut so that the edge of the tape barely touches the lower part of the TAKE-UP TAPE GUIDE, without any curl or wrinkle between the TAKE-UP TAPE GUIDE and the CAPSTAN SHAFT as shown in Fig. 5-6 to Fig. 5-8.

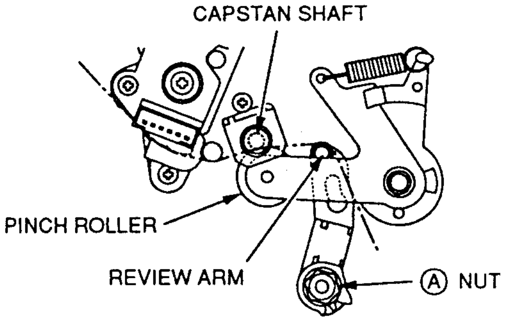
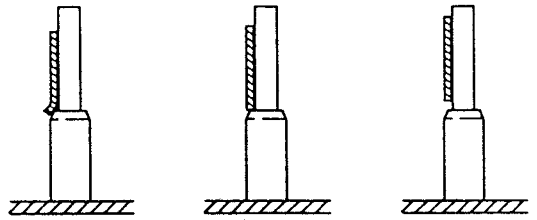


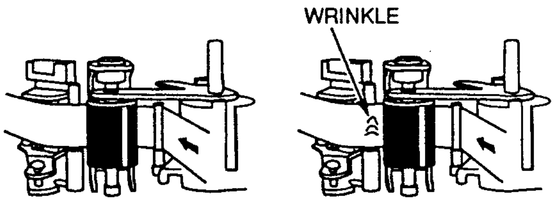
Fig. 5-6

(TAKE-UP TAPE GUIDE)



(a) INCORRECT (b) CORRECT (c) INCORRECT

Fig. 5-7

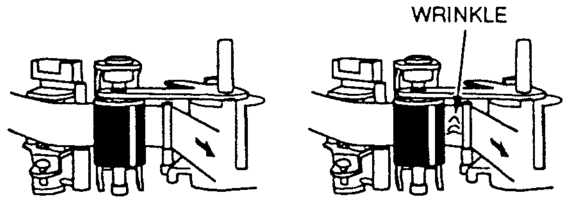


CORRECT INCORRECT

Fig. 5-8

3) Play back the last part of an E-240 (T-160) tape and this time set the unit to the CUE mode by pressing the F. FWD button.

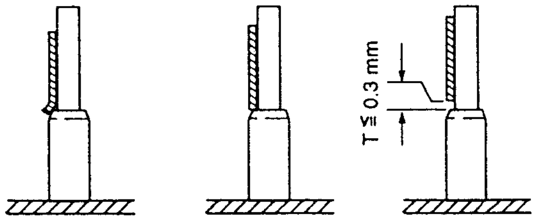
4) Confirm there is no curl or wrinkle near the REVIEW ARM's guide. If curl or wrinkle of the tape occurs, slightly turn the Ⓐ nut (Shown in Fig. 5-6) until it disappears.



CORRECT INCORRECT

Fig. 5-9

5) Set the unit to the REVIEW mode again. Then confirm that there is no curl or wrinkle near the TAKE-UP TAPE GUIDE. (A small gap may appear after this adjustment, but this is allowable.)



(a) INCORRECT (b) CORRECT (c) CORRECT

Fig. 5-10

NOTE :

1. If the results are not satisfactory, repeat steps 2) to 5).
2. Always play an undamaged tape to obtain satisfactory adjustment.
3. Because an E-240 (T-160) tape can be damaged easily, due of its thinness, a pre-adjustment with an E-180 (T-120) tape is recommended.

5-2-4. LOADING LEADER height adjustments

1) Slightly loosen the set screw at the lower part of the LOADING LEADERs (L), (R) so that the LOADING LEADER can be adjusted with reasonable tightness. (Refer to Fig. 5-11.)

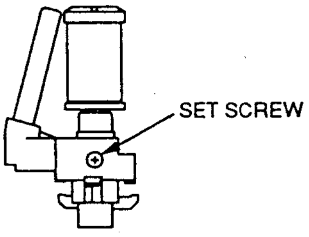


Fig. 5-11

2) Play back the reference tape TF-530RFS (AT-751775).
3) Connect an oscilloscope's CH-1 to the TP1 (ENVE) on the PRE AMP & Hi-Fi PCB and CH-2 to the TP2 (V-SWP) for triggering.
4) Turn the LOADING LEADER heads with a flat head(–) screw driver to obtain a flat RF envelope as the ideal envelope, as shown in Fig. 5-12.
5) After adjustment is completed, tighten the loading leader set screws.

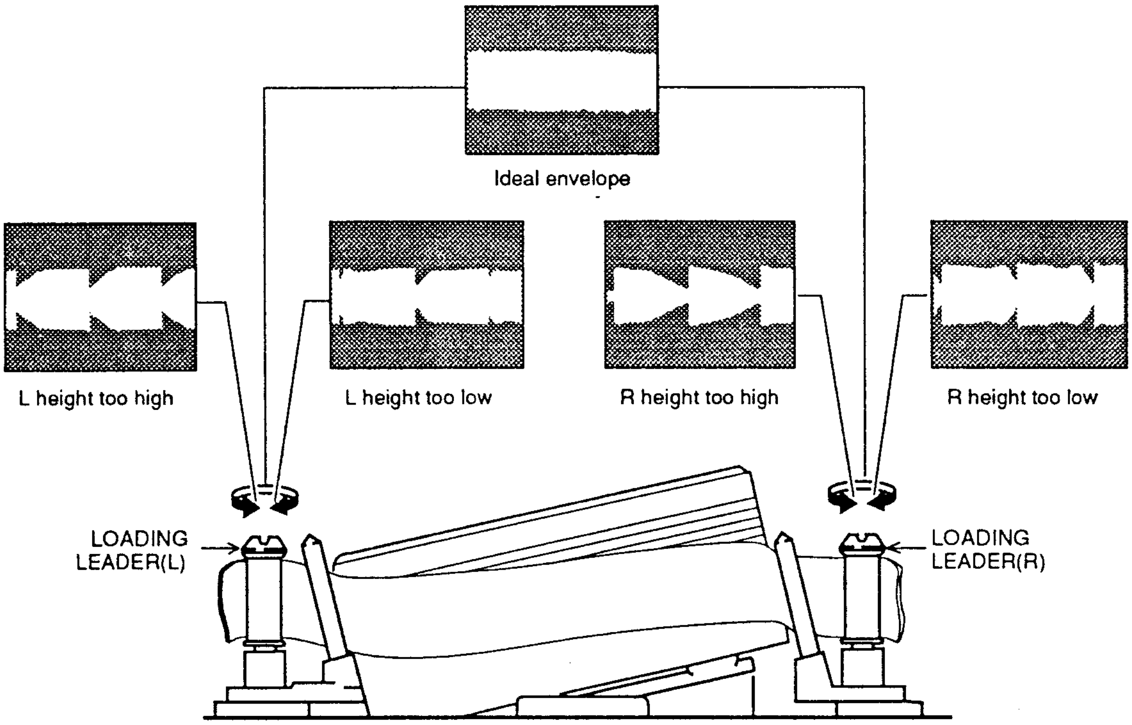

Ideal envelope
L height too high
L height too low
R height too high
R height too low
LOADING LEADER(L)
LOADING LEADER(R)

Fig. 5-12

5-3. A/C HEAD POSITION ADJUSTMENT

5-3-1. Azimuth adjustment

1) Connect an AC voltmeter or an oscilloscope to the AUDIO OUT terminal on the rear panel.
2) Play back the reference tape TF-530RFS (AT-751775).
3) Press the "AUDIO MONITOR" button on the remote control unit repeatedly and choose the linear (normal) audio playback.
4) Adjust the Ⓑ screw to obtain the maximum audio output.

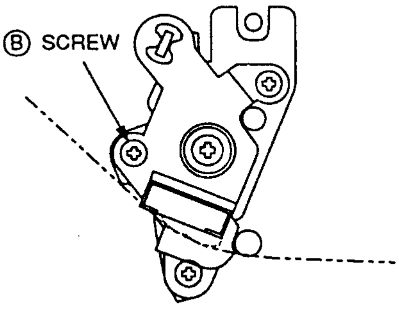


Fig. 5-13

5-3-2. Height adjustment

1) Play back test tape TF-526HH (AT-751788).
2) Connect an oscilloscope to the AUDIO OUT terminal on the rear panel .
3) Slightly turn the Ⓒ screw so that the output level is between 30 ~ 80 mVp-p.

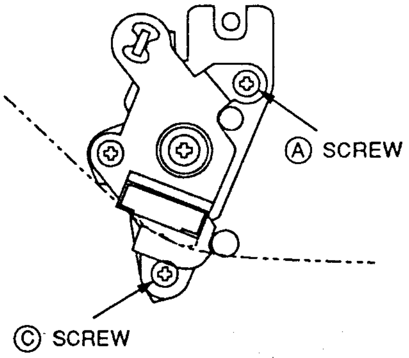

Ⓐ SCREW
Ⓒ SCREW

Fig. 5-14

5-2-3. REVIEW ARM height adjustment

1) Play back the last part of an E-240 (T-160) tape and set the unit to the REVIEW mode by pressing the REW button. (Remove the tape protection cover to make the adjustment easier.)

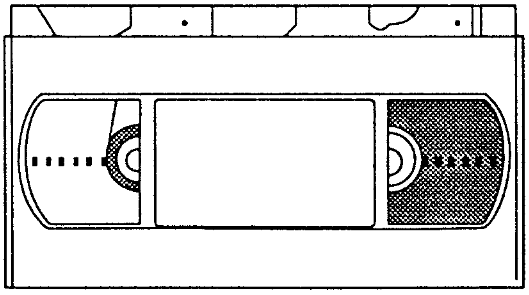


Fig. 5-5

2) Turn the REVIEW ARM height Ⓐ nut so that the edge of the tape barely touches the lower part of the TAKE-UP TAPE GUIDE, without any curl or wrinkle between the TAKE-UP TAPE GUIDE and the CAPSTAN SHAFT as shown in Fig. 5-6 to Fig. 5-8.

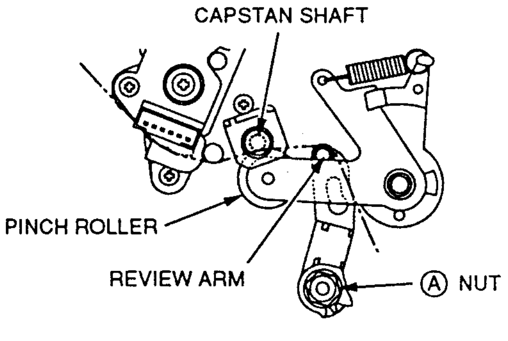
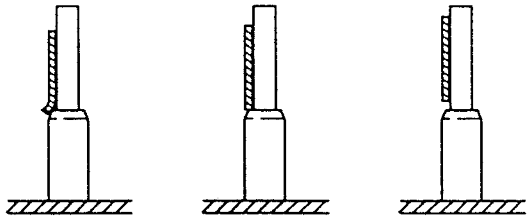


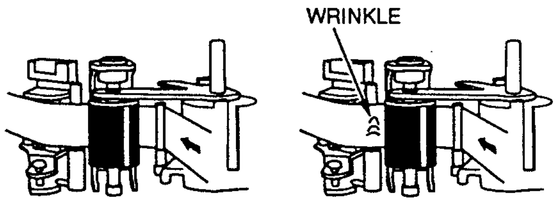
Fig. 5-6

(TAKE-UP TAPE GUIDE)



(a) INCORRECT (b) CORRECT (c) INCORRECT

Fig. 5-7

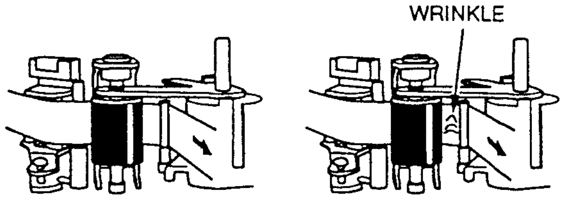


CORRECT INCORRECT

Fig. 5-8

3) Play back the last part of an E-240 (T-160) tape and this time set the unit to the CUE mode by pressing the F. FWD button.

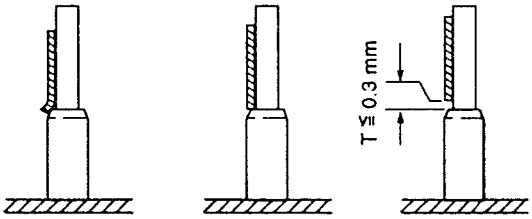
4) Confirm there is no curl or wrinkle near the REVIEW ARM's guide. If curl or wrinkle of the tape occurs, slightly turn the Ⓐ nut (Shown in Fig. 5-6) until it disappears.



CORRECT INCORRECT

Fig. 5-9

5) Set the unit to the REVIEW mode again. Then confirm that there is no curl or wrinkle near the TAKE-UP TAPE GUIDE. (A small gap may appear after this adjustment, but this is allowable.)



(a) INCORRECT (b) CORRECT (c) CORRECT

Fig. 5-10

NOTE :

1. If the results are not satisfactory, repeat steps 2) to 5).
2. Always play an undamaged tape to obtain satisfactory adjustment.
3. Because an E-240 (T-160) tape can be damaged easily, due of its thinness, a pre-adjustment with an E-180 (T-120) tape is recommended.

5-2-4. LOADING LEADER height adjustments

1) Slightly loosen the set screw at the lower part of the LOADING LEADERs (L), (R) so that the LOADING LEADER can be adjusted with reasonable tightness. (Refer to Fig. 5-11.)

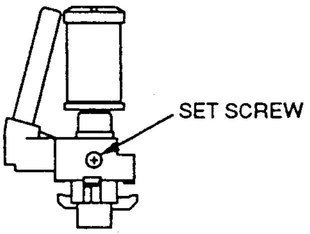


Fig. 5-11

2) Play back the reference tape TF-530RFS (AT-751775).
3) Connect an oscilloscope's CH-1 to the TP1 (ENVE) on the PRE AMP & Hi-Fi PCB and CH-2 to the TP2 (V-SWP) for triggering.
4) Turn the LOADING LEADER heads with a flat head(–) screw driver to obtain a flat RF envelope as the ideal envelope, as shown in Fig. 5-12.
5) After adjustment is completed, tighten the loading leader set screws.

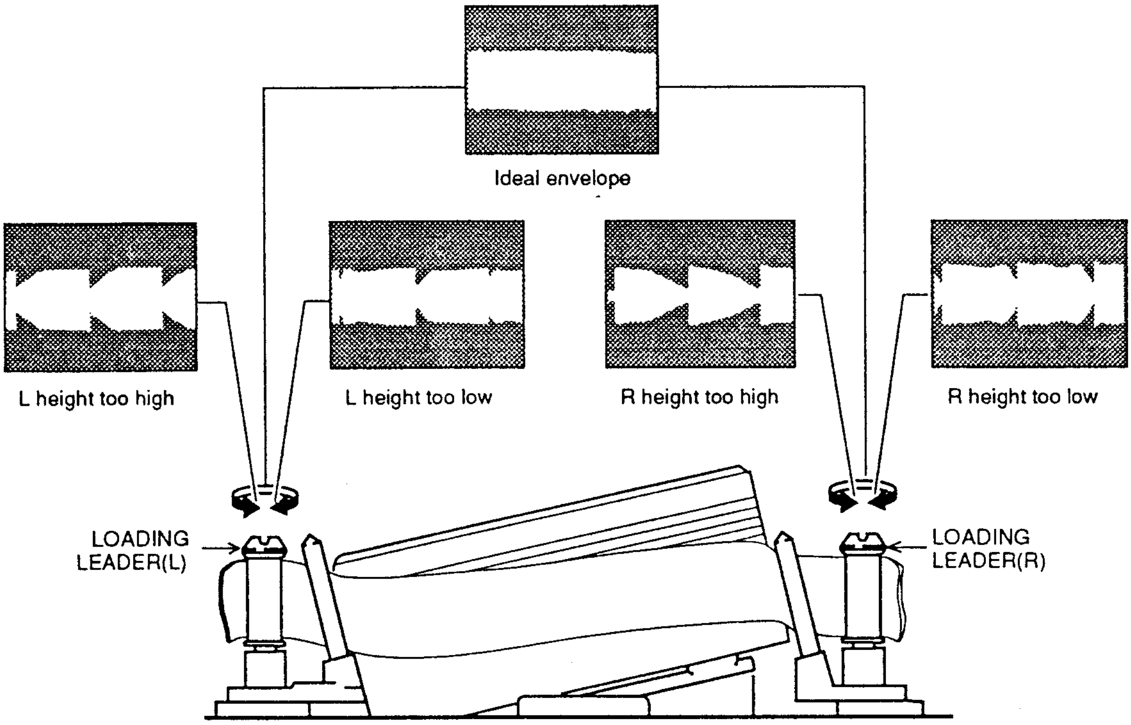

Ideal envelope
L height too high
L height too low
R height too high
R height too low
LOADING LEADER(L)
LOADING LEADER(R)

Fig. 5-12

5-3. A/C HEAD POSITION ADJUSTMENT

5-3-1. Azimuth adjustment

1) Connect an AC voltmeter or an oscilloscope to the AUDIO OUT terminal on the rear panel.
2) Play back the reference tape TF-530RFS (AT-751775).
3) Press the "AUDIO MONITOR" button on the remote control unit repeatedly and choose the linear (normal) audio playback.
4) Adjust the Ⓑ screw to obtain the maximum audio output.

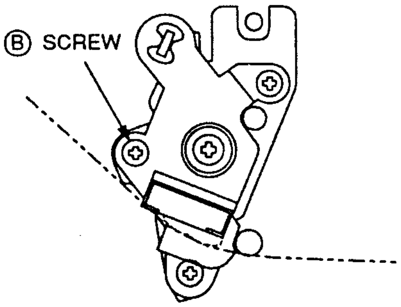


Fig. 5-13

5-3-2. Height adjustment

1) Play back test tape TF-526HH (AT-751788).
2) Connect an oscilloscope to the AUDIO OUT terminal on the rear panel .
3) Slightly turn the Ⓒ screw so that the output level is between 30 ~ 80 mVp-p.

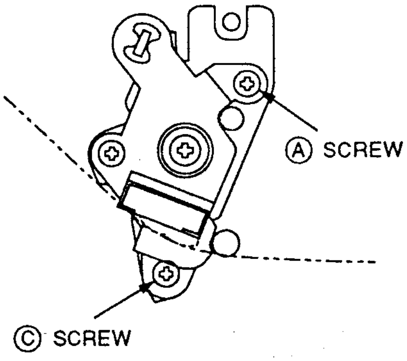

Ⓐ SCREW
Ⓒ SCREW

Fig. 5-14

4) Slightly turn the Ⓐ screw until the tape edge barely touches the lower part of the TAKE-UP TAPE GUIDE without any curl or wrinkle as shown in Fig. 5-3.
5) Adjust the head azimuth again. (Turning the Ⓒ screw, or Ⓐ screw, will cause head azimuth mis-alignment. Refer to 5-3-1. Azimuth adjustment.)
6) Confirm whether the output level is still between 30 ~ 80 mVp-p or not. If the result is not satisfactory, repeat steps 3) to 5).

5-3-3. Phase adjustment

1) Connect an oscilloscope's CH-1 to the TP1 (ENVE) on the PRE AMP & Hi-Fi PCB and CH-2 to the TP2 (V-SWP) for triggering.
2) Play back reference tape TF-530RFS (AT-751775).
3) Press the ">" or "<" TRACKING button on the remote control unit until the "X" mark can be seen in the center position of the tracking range on the TV screen as shown in Fig. 5-15.

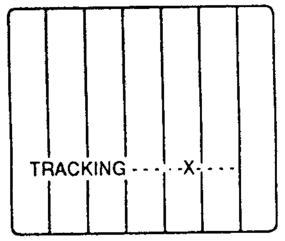


Fig. 5-15

4) Loosen the Ⓓ screw slightly so that the A/C HEAD BASE can be moved with reasonable tightness.

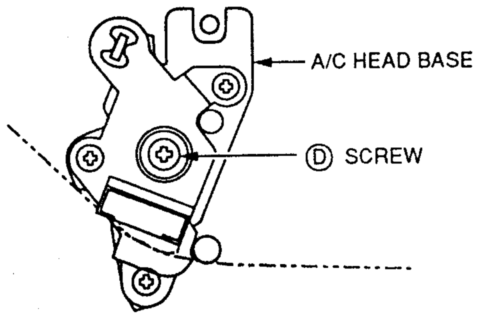


Fig. 5-16

5) Insert a philips type screwdriver into the A/C HEAD BASE and Ⓐ hole as shown in Fig. 5-17

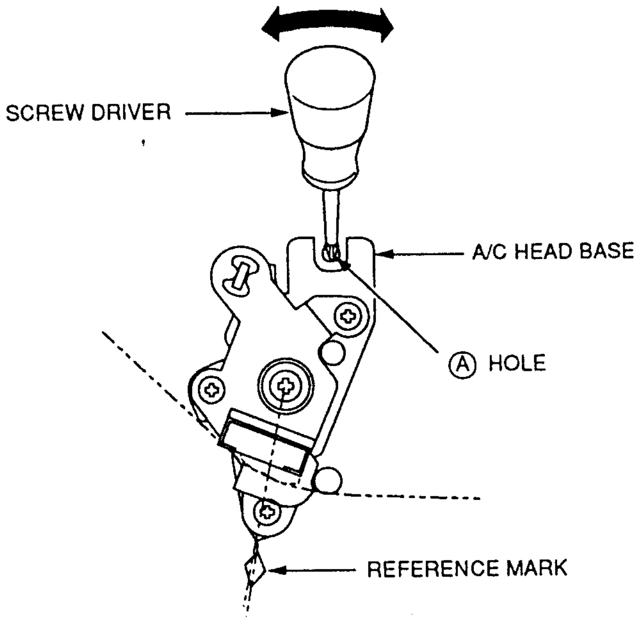


Fig. 5-17

6) Move the A/C HEAD BASE by moving a screwdriver in the direction of the arrow as shown in Fig. 5-17 to obtain the maximum RF output, then tighten the Ⓓ screw. Although there are a few points at which the RF output becomes maximum, the pointed head of the A/C HEAD BASE must be positioned as close to the reference mark as possible.
7) Eject the tape and then re-insert it and play it back again. Confirm that the RF output is maximum after the auto tracking control has been activated. Next, press the "<" or ">" cursor button on the remote control unit alternately and confirm that the RF output is maximum at the tracking centre position. If the result is not satisfactory, repeat the adjustment steps 2) to 6). (This adjustment is very important as this affects the interchangeability of the recorded tapes.)

VI. ELECTRICAL ADJUSTMENT

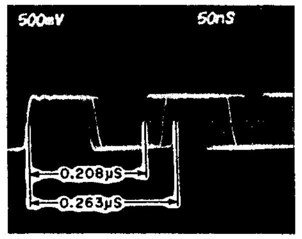
Precautionary items prior to adjustments
1. The colour bar generator output should be 1.0 Vp-p.
2. The video output terminal should be terminated with 75 ohms (connect dummy load or 75 ohms input TV).
3. If the IC601 (Y/C signal processor) on the MAIN PCB is replaced, adjustment (step 1 & 3 to 7) should be performed.

The following test tape is required.

Test tape	Parts No.
TF-532CBS	AT-751360

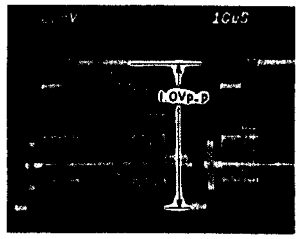
4 CARRIER SET & DEVIATION

1. "E-E", Stair step signal
2. Lead of VR608 (REC-Y) & VR601 (DEVIATION), VR602 (CARRIER),
3. • Connect an oscilloscope to the lead of the VR608 (REC FM OUT).
   ∗Adjust VR601 and VR602 alternately until the result is satisfactory.
   ∗VR601 (DEVIATION) :0.208 μs (4.8 MHz)
   ∗VR602 (CARRIER) :0.263 μs (3.8 MHz)



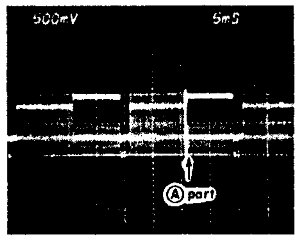
1 VIDEO E-E LEVEL

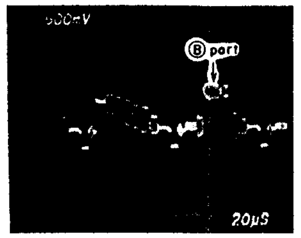
1. "E-E" (STOP mode), PAL colour bar signal
2. VIDEO OUT & VR607 (E-E LEVEL)
3. • Connect an oscilloscope to VIDEO OUT.
   ∗1.0 Vp-p



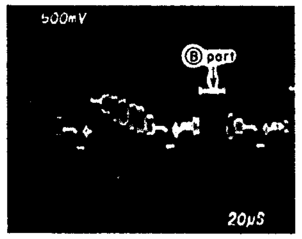
8 CDR (EOG-D model only)

1. "PB", test tape TF-532CBS
2. VIDEO OUT, TP2 (SWP) & VR3 (MIX GAIN) ,VR4 (PHASE ADJ.)
3. • Connect CH-1 of an oscilloscope to VIDEO OUT and CH-2 to the TP2 on the PRE AMP & Hi-Fi PCB for triggering.
   • Set the oscilloscope to delayed scanning mode and observe the Ⓐ part (line non-correlated part).
   ∗ After the auto tracking control has been activated, adjust the VR3 and VR4 alternately so that the non-correlated chroma signal (Ⓑ part) is at its minimum level.

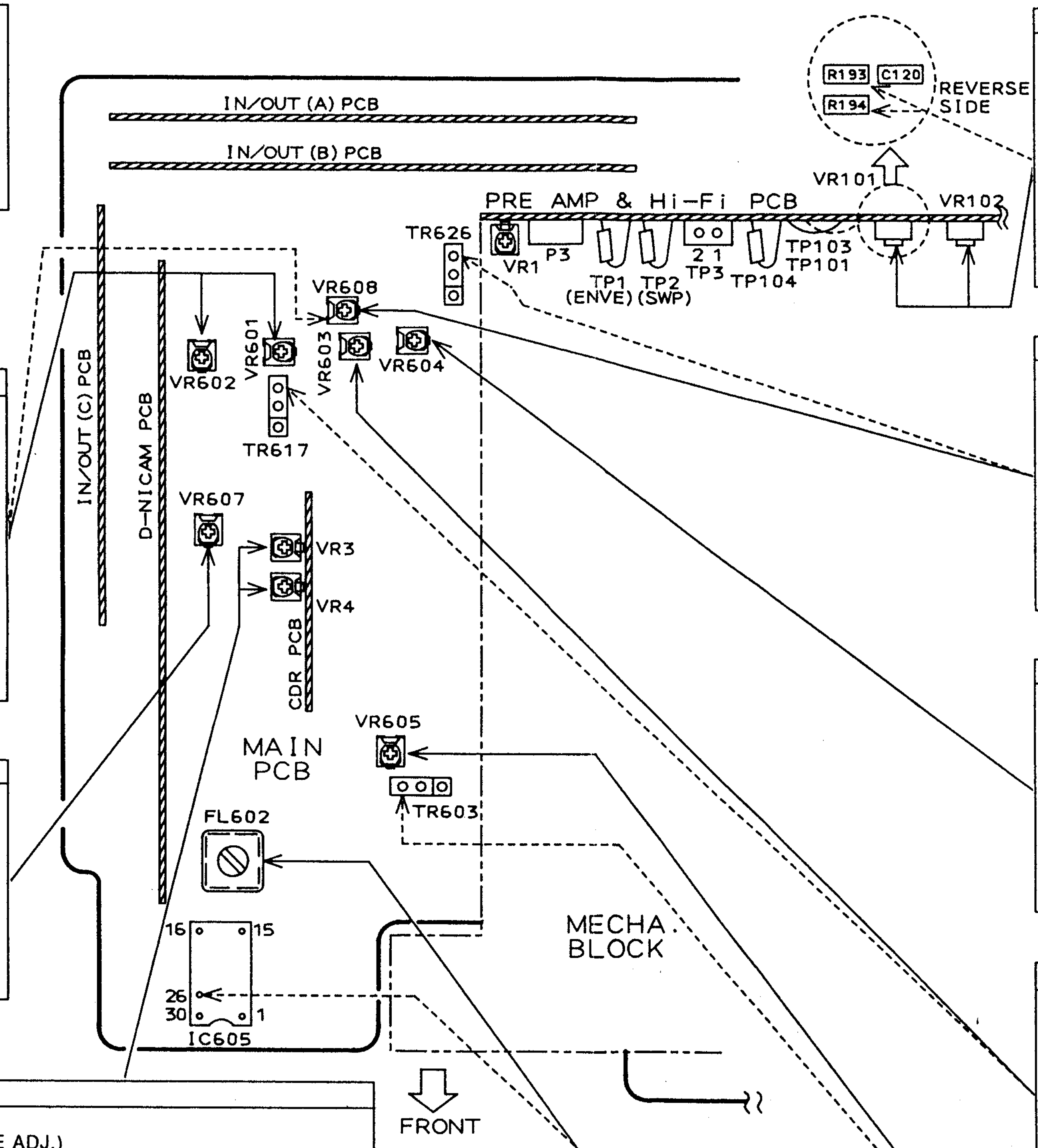




INCORRECT



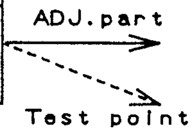
CORRECT



2 IMS AFC

1. "E-E", PAL colour bar signal
2. IC605 ㉖ pin & FL602
3. • Connect a digital DC voltmeter to the IC605 ㉖ pin.
   ∗ Adjust FL602 so that the meter registers 2.5 V.

STEP	ADJUSTMENT ITEM
1. MODE and INPUT SIGNAL/TEST TAPE	
2. TEST POINT and ADJ part	
3. REMARKS (•) & RESULT (∗)	

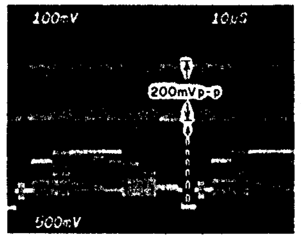


9 Hi-Fi CARRIER FREQUENCY

1. "E-E", no signal input
2. R193 (1.4 MHz), R194 (1.8 MHz) & VR101 (L-CH fo), VR102 (R-CH fo)
3. • Connect a frequency counter to the lead of R193 on the PRE AMP & Hi-Fi PCB.
   ∗ Adjust the VR101 so that the frequency counter registers 1.4 MHz ± 50 Hz.
   • Connect a frequency counter to the lead of R194.
   ∗ Adjust the VR102 so that the frequency counter registers 1.8 MHz ± 50 Hz.

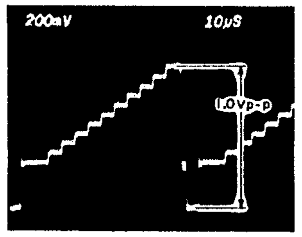
5 Y REC CURRENT

1. "E-E", PAL colour bar signal
2. TR626 emitter (REC-Y) & VR608 (REC-Y),
3. • Connect an oscilloscope to the TR626 emitter on the MAIN PCB.
   ∗ Adjust VR608 so that the Y REC current becomes 200 mVp-p at the sync signal area.



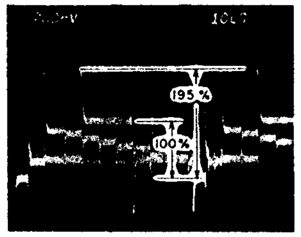
7 VIDEO PB LEVEL

1. "REC"→ "PB", stair step signal
2. VIDEO OUT & VR604 (PB LEVEL)
3. • Connect an oscilloscope to VIDEO OUT.
   • Make a recording on a blank tape, then play it back.
   ∗ Adjust VR604 so that the PB level becomes 1.0 Vp-p.



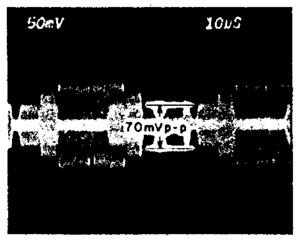
3 WHITE CLIP

1. "E-E", Stair step signal
2. TR617(EMITTER) & VR603 (WHITE CLIP)
3. • Connect an oscilloscope to the emitter of TR617.
   ∗ Adjust VR603 so that the white clip level is 195 % of the video level (the level from sync tip to white 100%).



6 CHROMA REC CURRENT

1. "E-E", PAL colour bar signal
2. TR603 emitter & VR605 (REC-CHROMA)
3. • Connect an oscilloscope to the TR603 emitter.
   • Set the tape speed to "SP mode".
   ∗ Adjust VR605 on the MAIN PCB so that the burst signal level becomes 70 ± 5 mVp-p.



VII. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the Part No., Model No. and the description of earch part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List or Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2.HEAD BASE BLOCK

Ref. No.	Part. No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20x03STL CMT
4	ZS-536488	BID20x08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in the figure.

b) PC Board

2.MAIN PC BOARD

Ref. No.	Part. No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A)	[S] : SAA (Australia)
[B] : BEAB (England)	[U] : U/T (Universal Area)
[C] : CSA (Canada)	
[E] : CEE (Europe)	[V] : VDE (Germany)
[J] : JPN (Japan)	[Y] : Custom

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

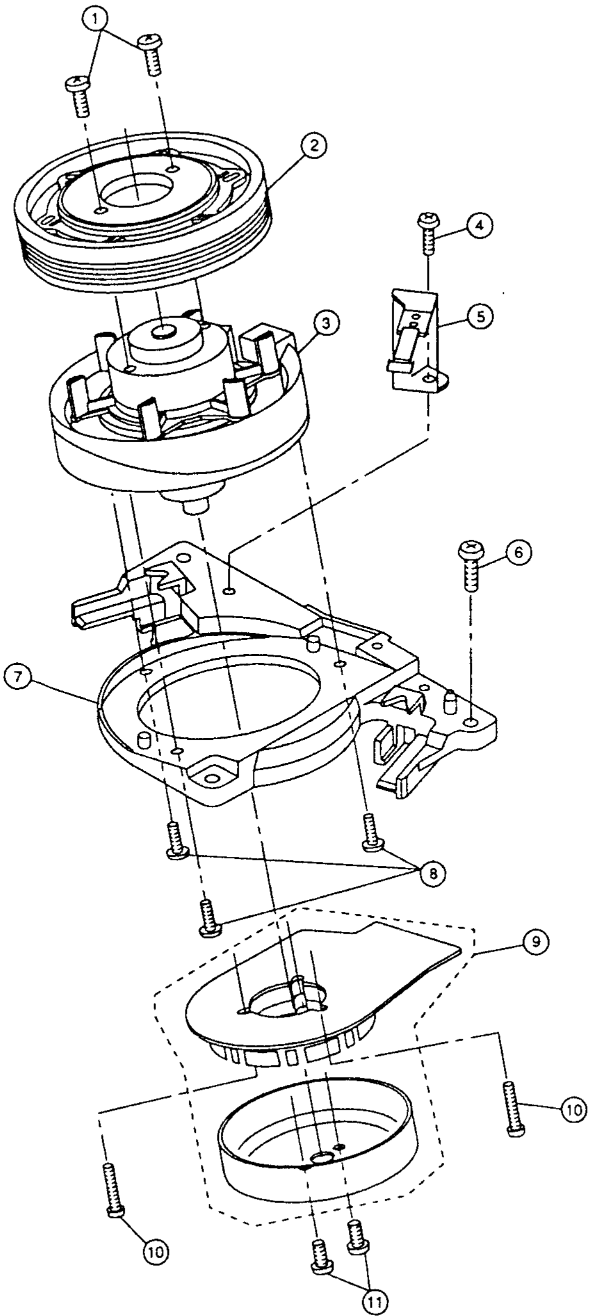
1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	BB-421838N50	MECHA DECK G215EK
2	BL-424913N06	ARM LOADING BLK G204EA
3	BL-420054N3	ARM PINCH ROLLER PART
4	BM-421746N	MOTOR PART
5	BM-419269N2	MOTOR SCV-0602A
6	BM-419324N2	MOTOR SDV-0302A
7	⚠ BT-422117N	TRANS POW V1190 EOG
8	BV-424915N02	LEADER(T) BLK G204EA
9	BV-424919N08	CASSETTE LOAD BLK G204EA
10	BV-424914N02	LEADER(S) BLK G204EA
11	BV-V1182A410D	LOWER DRUM BLK G705EA-D
12	BV-425222J	RF CONVER. YAA21-1001G G/K EDG [EDG]
13	BV-403410J	RF CONVERTER MDLK6B733A EK [EK]
14	BV-428414J	RF CONVERTER MDLK6D999A EO [EXCEPT EA,EDG,EK]
15	BV-387610J1	RF CONVERTER YAA21-0809G EA [EA]
16	BV-V1182A420E	UPPER DRUM BLK G705EA-D
17	BV-422570J1	VIF UNIT AHX EA
18	BV-427235J1	VIF UNIT AHX TEK EOG [EOH-D,EOG]
19	BV-422132J1	VIF UNIT AX EDG
20	BV-428124J1	VIF UNIT GHX EK
21	BV-428125J1	VIF UNIT GHX EO
22	BV-428126J1	VIF UNIT GHX EOHN [EOH-N/DN]
23	ED-390012J	D LED GL4800 INFRARED
24	ED-422251J	D LED GL528VTB INFRARED T05
25	ED-425369J	D SCHOTTKY AK03V0 T26
26	ED-428020J	D SCHOTTKY CHIP MA716 TXT08E
27	ED-410157J	D SILICON CHIP MA152WA [EDG]
28	ED-419028J	D SILICON CHIP MA152WK TXT08E
29	ED-427158J	D SILICON CHIP MA153A TXT08E
30	⚠ ED-418976J	D SILICON EG01CW T05 1000/0.5A
31	ED-425207J	D SILICON ERA18-02 T26
32	ED-307572	D SILICON H 1SS131
33	⚠ ED-511907	D SILICON 1N4002 100/1.0A
34	⚠ ED-422125J	D SILICON 1N4006 T26 800/1.0A
35	ED-397233J	D ZENER H HZS5C3
36	ED-387919J	D ZENER H HZS6A1L
37	ED-367502	D ZENER H HZS9A1L [EXCEPT EA,EK,EO]
38	ED-397614J	D ZENER H HZS9A3L T26
39	ED-425442J	D ZENER H MTZJ13A T26
40	⚠ ED-422420J	D ZENER H MTZJ20C T26
41	⚠ ED-422519J	D ZENER H MTZJ4.3B T26
42	ED-405604J	D ZENER H MTZJ4.3C T26
43	ED-425605J	D ZENER H MTZJ4.7B T26
44	ED-427218J	D ZENER H MTZJ6.2C T26
45	ED-404220J	D ZENER H MTZJ9.1B T26
46	EE-428336J	TV TUNER TEKB1-014A EK [EK]
47	EE-428337J	TV TUNER TEKE1-078A EO [EO]
48	EE-416524J1	TV TUNER TEKE4-034B EOG [EXCEPT EA,EK,EO]
49	EE-387600J2	TV TUNER TERS1-002C EA [EA]
50	⚠ EF-601964	FUSE SET T 250V 1.60A
51	EH-422240J	DL ADL-SN2344Q
52	EH-416491J	DL EFDJLA13A [EXCEPT EOG]
53	EH-732529J	FILTER CE SAF31.4MC70Z [EA]
54	EH-733747J	FILTER CE SAF32.9MC70Z [EK]
55	EH-733748J	FILTER CE SAF33.0MC70Z [EOH-N/DN]
56	EH-732528J	FILTER CE SAF33.4MC70Z [EOH-D,EO,EOG]
57	EH-373916	FILTER CE SAF36.9MZ70Z [EA]
58	EH-730625J	FILTER CE SAF38.9MZW70Z [EOH,EO,EOG]
59	EH-373917	FILTER CE SAF39.5MZ70Z [EK]
60	EH-366894J1	FILTER CE SFE-4.16MB 4.16MHZ
61	EH-394948J1	FILTER CE SFT5.5MA [EOH-N/DN]
62	EH-416920J1	FILTER CE SFT6.0MA [EK]
63	EH-368948J1	FILTER CE TPS5.5MW 5.5000MHZ [EA,EOH,EO,EOG]
64	EH-733749J	FILTER CE TPS6.0MB2 [EK]
65	EI-425246J2	IC UPD75217GF654-3BE AHXOPP3
66	EI-425189J	IC AN3317K
67	EI-416607J	IC AN3386NK-A
68	EI-422151J1	IC AN3558FBSA
69	EI-425194J	IC AN3963NFBPA
70	⚠ EI-422131J	IC AN7809F
71	EI-389644J	IC BA403
72	EI-366892	IC BA7025L
73	EI-385995J	IC BA7755A
74	EI-356457	IC BU4013B
75	EI-425537J	IC LA6358NM
76	EI-729997J	IC LA7575 [EA,EOH-D,EO,EOG]
77	EI-427370J	IC LA7577 [EK,EOH-N/DN]
78	EI-403233J	IC LB1641
79	EI-419157J	IC LC74760-9044
80	EI-394856J	IC LC8992
81	EI-389622J	IC L5631
82	EI-408961J	IC MM1031XS [EDG,EOH-D/DN,EOG]
83	EI-416647J	IC MM1111XS [EDG,EOH-D/DN,EOG]
84	EI-416646J	IC MM1113XS
85	EI-425324J1	IC M37770M4H-163FP AHXSYP2
86	EI-422218J	IC M51494L
87	EI-368809	IC M51496P
88	⚠ EI-418723J	IC NJM4558DX
89	EI-400756J	IC NJM4558L-B
90	EI-422090J	IC SAA5233P [EXCEPT EA,EO,EOH-DN[Y2],G720EOH-D]
91	EI-422128J	IC TA76431S T05
92	EI-332259	IC TC4052BP
93	EI-200573	IC TC4053BP
94	EI-310036	IC TC4066BP [EDG,EOH-D/DN,EOG]
95	EI-425190J1	IC TDA8204B
96	EI-425191J	IC TDA8205
97	EI-416611J	IC TDA8417
98	EI-416691J	IC XC61AC3002TH T05
99	EI-425668J	IC 24LC02B/SN
100	EI-368829	OSC CE CSB512P
101	EI-418824J	OSC CE W/C FCR4.19MC5 4.190MHZ
102	EI-425184J	OSC X'TAL APS-1007 11.648MHZ
103	EI-425240J	OSC X'TAL APS-1011A 16.000MHZ
104	EI-416872J	OSC X'TAL APS1004A 17.734475MH
105	EI-422092J	OSC X'TAL APS1008 3RD27.000MHZ [EXCEPT EA,EO,EOH-DN[Y2],G720EOH-D]
106	EI-425185J	OSC X'TAL ASP-1006 10.000MHZ
107	EI-431323N	OSC X'TAL C-002RX 32.768KHZ
108	EI-422510J	OSC X'TAL HC-49/U 4433.619KHZ
109	EM-429960J	IND FL FIP10CCM7A CHARACTER
110	⚠ ER-425269J	R FUSE H S10 RF25SC 1/4W R47K
111	⚠ ER-408829J	R FUSE V T05 RF25SCVTP1/4WR 1K
112	⚠ ER-400728J	R FUSE V T05 RF25SCVTP1/4WR 2K
113	⚠ ER-418648J	R FUSE V T05 RF25SCVTP1/4WR24K
114	⚠ ER-428204J	R FUSE V T05RF25SVTP 1/4W 22ΩJ
115	ES-426275J	SW MICRO ESE11SV1A

Ref. No.	Part No.	Description
116	ES-419326J1	SW MODE SELECT MMS00202ZMB0
117	ES-408405J	SW TACT EVQ 235 09K T05
118	ES-396610J	SW TACT SOR-122HS T05
119	ET-428361J	DETECTOR GP1U281X
120	⚠ ET-422113J	PHOTO COUPLER PS2561-1-V
121	ET-427131J	TR C.DTA115TK
122	ET-421984J	TR C.UN211D TXT08E
123	ET-421974J	TR C.UN2111 R,S TXT08E [EDG]
124	ET-421977J	TR C.UN2113 TXT08E
125	ET-421979J	TR C.UN2115 R,S TXT08E
126	ET-421999J	TR C.UN221D TXT08E
127	ET-422000J	TR C.UN221E TXT08E [EDG]
128	ET-421989J	TR C.UN2210 R,S TXT08E
129	ET-421990J	TR C.UN2211 TXT08E
130	ET-421991J	TR C.UN2212 TXT08E
131	ET-414836J	TR C.UN2213 TXT08E [EA]
132	ET-421993J	TR C.UN2215 R,S TXT08E
133	ET-370818	TR C.2SA1235 [EK,EOH-N/DN]
134	ET-416932J	TR C.2SB709A R,S TXT08E [EA]
135	ET-370819	TR C.2SC3052
136	ET-422464J	TR C.2SD2118 Q,R,S FPTLT16E
137	ET-416933J	TR C.2SD601A R,S TXT08E
138	ET-731437J	TR CHIP DTC114EK [EOH,EO,EOG]
139	ET-725820J	TR CHIP 2SC2735J
140	ET-415140J	TR DTA115TS T05
141	ET-368786	TR DTC143ZS T05
142	ET-390010J	TR PHOTO PT4800
143	ET-390009J	TR PHOTO PT493F
144	ET-419710J	TR UN4113 T05
145	ET-419712J	TR UN4115 R,S T05
146	ET-422254J	TR UN4117 R,S T05
147	ET-364040	TR UN421D
148	ET-421952J	TR UN421L T05
149	ET-360400	TR UN4210 [EXCEPT EA,EK,EO]
150	ET-422031J	TR UN4210 R,S T05
151	ET-421939J	TR UN4211 T05
152	ET-421941J	TR UN4213 T05 [EXCEPT EK]
153	ET-421944J	TR UN4215 R,S T05
154	ET-421945J	TR UN4216 R,S T05
155	ET-353899	TR 2SA1317 S,T,U
156	⚠ ET-404498J	TR 2SB1306 Q,R T05
157	⚠ ET-422154J	TR 2SB1426 Q,R T05
158	ET-414816J	TR 2SC2668 Y T05
159	ET-397160J	TR 2SC3330 R,S,T,U,V [EXCEPT EK]
160	⚠ ET-422118J	TR 2SC4304 O,Y
161	⚠ ET-422129J	TR 2SD2132 U,V T05
162	⚠ ET-422511J	TR 2SD2375 P
163	EW-422531J	CORD FFC BD P1.25 L150 16P
164	EW-419012J	CORD SHIELD FFC L150 18P
165	⚠ EX-405691J	THERMISTOR NTH5D332KA
166	⚠ EX-412521J	THERMISTOR 911P83E101NH07 T05
167	HE-422168J	HEAD E HVFHF0032A
168	HR-416732J	HEAD COMBO HVMZA1161A
169	MB-420053N	BELT CAPSTAN
170	MI-420038N2	DISK CLUTCH PART
171	MI-420023N3	ARM IDLER PART
172	MI-420037N	DISK COUPLING
173	ML-420068N1	ARM REVIEW PART
174	ML-428102N	LEVER CAM PINCH
175	ML-420133N1	LEVER REC-S
176	ML-420033N1	ARM COUPLING
177	ML-420170N	ARM LID OPENER
178	ML-420097N1	ARM LOADING BRAKE
179	ML-420102N1	ARM T.U BRAKE
180	ML-420006N2	ARM TENSION PART
181	ML-420126N1	CAPSTAN BRAKE PART
182	ML-420099N1	LEVER M BRAKE
183	ML-420416N3	LEVER TENSION(1)PART
184	ML-420086N1	MAIN BRAKE(S)PART
185	ML-420089N1	MAIN BRAKE(T)PART
186	ML-420092N1	REVIEW BRAKE PART
187	ML-420110N3	SLIDER PINCH
188	ML-420100N2	SLIDER TRIGGER
189	MR-420109N	HOLDER THRUST WORM
190	MR-420106N	PULLEY TRIGGER
191	MR-420022N	ROLLER IMPEDANCE
192	MT-424632N1	DISK(2) PART
193	MZ-420064N	GEAR CAM HELICAL
194	MZ-420122N	GEAR CAM MAIN
195	MZ-424917N01	GEAR TOGGLE (S) BLK G204EA
196	MZ-424916N02	GEAR TOGGLE (T) BLK G204EA
197	MZ-420132N2	PRISM LED
198	MZ-428103N	GEAR CAM R-204
199	MZ-420035N	GEAR COUPLING
200	MZ-420124N2	GEAR FRONT LOADING
201	MZ-420067N	GEAR PINCH
202	MZ-420123N	GEAR WORM WHEEL
203	MZ-420016N1	TENSION BAND PART
204	ZG-420036N	SP PUSH COUPLING
205	ZG-420105N	SP TRIGGER

HEAD DRUM BLOCK



2. HEAD DRUM BLOCK

Ref. No.	Part No.	Description
1	ZS-321298	BID30X08STL CMT
2	BV-V1182A420E	UPPER DRUM BLK G705EA-D
3	BV-V1182A410D	LOWER DRUM BLK G705EA-D
4	ZS-358936	ST BID30X06STL CMT
5	VT-418700J1	EARTH BRUSH (2) PART AG
6	ZS-336714	ST BID30X12STL CMT
7	MA-429081J	CHASSIS DRUM(A)
8	ZS-563444	BID26X08STL CMT
9	BM-419324N2	MOTOR SDV-0302A
10	ZS-467796	PAN26X12STL CMT
11	ZS-379350	PAN30X06STL CMT

NOTE :

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

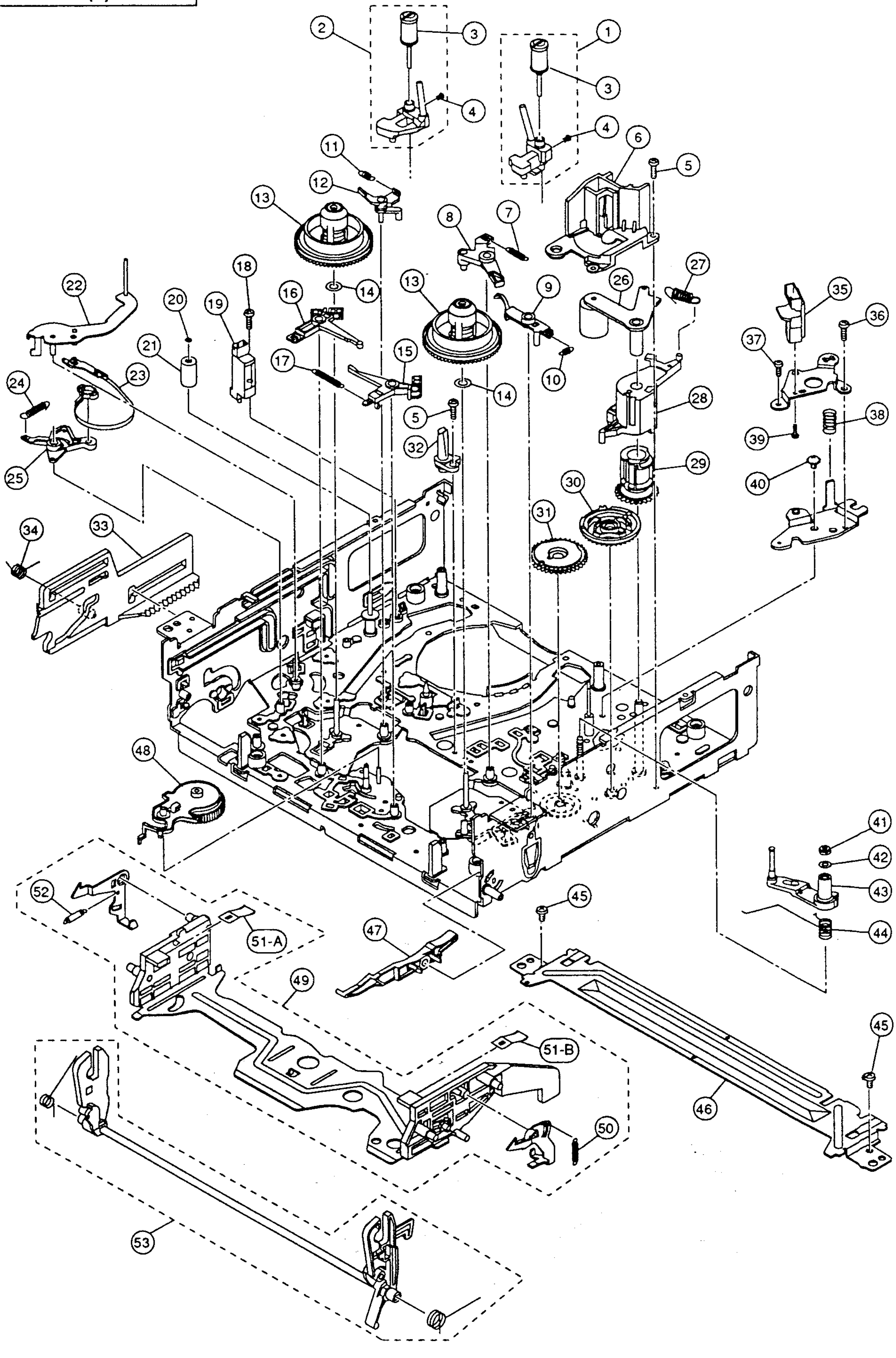
3. MECHANISM (1) BLOCK

Ref. No.	Part No.	Description
1	BV-424915N02	LEADER(T) BLK G204EA
2	BV-424914N02	LEADER(S) BLK G204EA
3	VT-387394N2	GUIDE ROLLER D8 PART
4	ZS-418616J	PAN20X2.8STL CMT PS1 LEADER
5	ZS-383761J	ST BID26X06STL CMT
6	MZ-428101N	HOLDER CAM PINCH
7	ZG-420095N	SP PULL REVIEW BRAKE
8	ML-420092N1	REVIEW BRAKE PART
9	ML-420102N1	ARM T.U BRAKE
10	ZG-420103N1	SP PULL T.U BRAKE
11	ZG-420098N	SP PULL LOADING BRAKE
12	ML-420097N1	ARM LOADING BRAKE
13	MT-424632N1	DISK(2) PART
14	ZW-424667N	REEL WASHER
15	ML-420089N1	MAIN BRAKE(T)PART
16	ML-420086N1	MAIN BRAKE(S)PART
17	ZG-420091N	SP PULL MAIN BRAKE
18	ZS-403887J	PT BID26X12STL CMT
19	HE-422168J	HEAD E HVFHF0032A
20	ZW-395919J	SLIT W16X035X025 PSL
21	MR-420022N	ROLLER IMPEDANCE
22	ML-420006N2	ARM TENSION PART
23	MZ-420016N1	TENSION BAND PART
24	ZG-420015N1	SP PULL TENSION(1)
25	ML-420416N3	LEVER TENSION(1)PART
26	BL-420054N3	ARM PINCH ROLLER PART
27	ZG-428105N	SP PULL PINCH ROLLER
28	ML-428102N	LEVER CAM PINCH
29	MZ-420064N	GEAR CAM HELICAL
30	MZ-428103N	GEAR CAM R-204
31	MZ-420067N	GEAR PINCH
32	MZ-420132N2	PRISM LED
33	ML-420168N1	SLIDER FRONT LOADING
34	ZG-420169N1	SP TORSION SLIDER
35	HR-416732J	HEAD COMBO HVMZA1161A
36	ZS-575392	PAN26X08STL CMT
37	ZS-422170J	PAN26X07STL CMT CP
38	ZG-420075N	SP PUSH A/C
39	ZS-418480J	PAN20X2.2STL BZN PS1
40	ZS-362533	ST PAN30X05STL CMT C080
41	ZW-350839	N30 NYLON
42	ZW-324417	PW31X060X050PSL
43	ML-420068N1	ARM REVIEW PART
44	ZG-420071N1	SP TORSION REVIEW
45	ZS-358936	ST BID30X06STL CMT
46	MZ-420172N2	PLATE UPPER
47	ML-420170N	ARM LID OPENER
48	MI-420023N3	ARM IDLER PART
49	BV-424919N08	CASSETTE LOAD BLK G204EA
50	ZG-420167N1	SP PULL DUMPER(T)
51-A	ZG-426481N	SP PLATE UPPER(S)
51-B	ZG-425178N	SP PLATE UPPER(T)
52	ZG-420166N	SP PULL DUMPER(S)
53	BL-424913N06	ARM LOADING BLK G204EA
59	BB-421838N50	MECHA DECK G215EK

NOTE :

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

MECHANISM (1) BLOCK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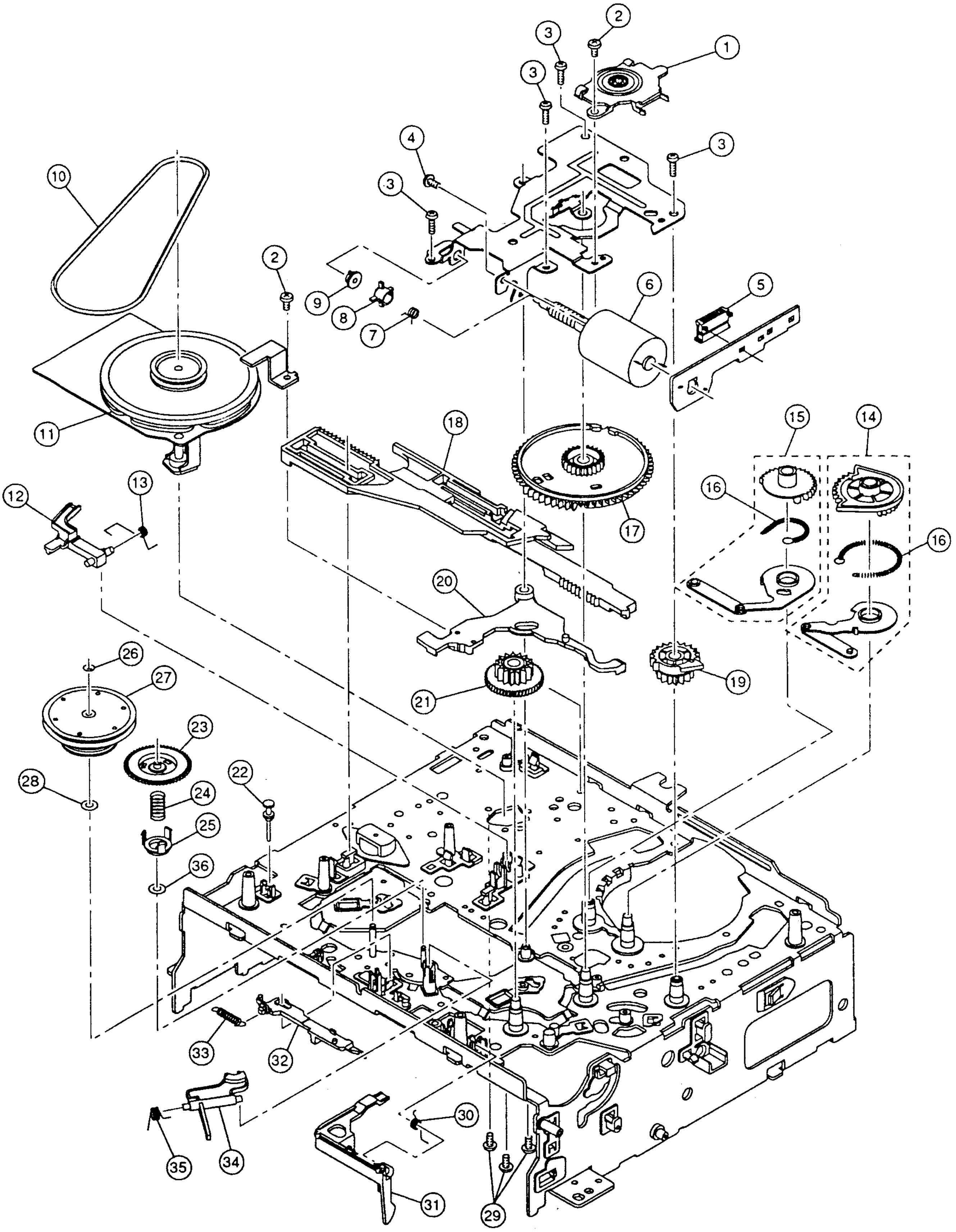
PARTS LIST

MECHANISM (2) BLOCK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4. MECHANISM (2) BLOCK

Ref. No.	Part No.	Description
1	ES-419326J1	SW MODE SELECT MMS00202ZMB0
2	ZS-358936	ST BID30X06STL CMT
3	ZS-389950J	PT BID26X10STL CMT
4	ZS-425981	BID30X03STL CMT
5	EJ-422169J	SOCKET TKC-M07X-A1 7P
6	BM-421746N	MOTOR PART
7	ZG-420105N	SP TRIGGER
8	MR-420106N	PULLEY TRIGGER
9	MR-420109N	HOLDER THRUST WORM
10	MB-420053N	BELT CAPSTAN
11	BM-419269N2	MOTOR SCV-0602A
12	ML-420126N1	CAPSTAN BRAKE PART
13	ZG-420129N1	SP TORSION C.B
14	MZ-424917N01	GEAR TOGGLE (S) BLK G204EA
15	MZ-424916N02	GEAR TOGGLE (T) BLK G204EA
16	ZG-420117N	SP PULL TOGGLE
17	MZ-420122N	GEAR CAM MAIN
18	ML-420110N3	SLIDER PINCH
19	MZ-420124N2	GEAR FRONT LOADING
20	ML-420099N1	LEVER M BRAKE
21	MZ-420123N	GEAR WORM WHEEL
22	MZ-420135N	SLIDE S-SW
23	MZ-420035N	GEAR COUPLING
24	ZG-420036N	SP PUSH COUPLING
25	MI-420037N	DISK COUPLING
26	ZW-418816J	SLIT W21X050X050PSL
27	MI-420038N2	DISK CLUTCH PART
28	ZW-389923J	PW26X060X050PSL
29	ZS-432843	PAN26X04STL CMT
30	ZG-420134N1	SP TORSION REC-S
31	ML-420133N1	LEVER REC-S
32	ML-420100N2	SLIDER TRIGGER
33	ZG-420101N	SP PULL TRIGGER
34	ML-420033N1	ARM COUPLING
35	ZG-420034N2	SP TORSION COUPLING
36	ZW-321317	PW21X040X050PSL

NOTE :
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

5. P.C. BOARD BLOCK

Ref. No.	Part No.	Description
1-A	BA-V1214A600A	PC(#) MAIN BLK G735EA-D
1-B	BA-V1214A600B	PC(#) MAIN BLK G735EDG
1-C	BA-V1214V600H	NS PC(#) MAIN BLK G735EOH-N/NS
1-D	BA-V1214Q600F	FR PC(#) MAIN BLK G720EOH-D(Y1)
1-E	BA-V1214Q600G	FR PC(#) MAIN BLK G725EOH-D(Y1)
1-F	BA-V1214Q600C	FR PC(#) MAIN BLK G735EK-N
1-G	BA-V1214Q600E	FR PC(#) MAIN BLK G735EO-D
1-H	BA-V1214Q600K	FR PC(#) MAIN BLK G735EOHDN(Y1)
1-I	BA-V1214Q600J	FR PC(#) MAIN BLK G735EOHDN(Y2)
1-J	BA-V1214Q600D	FR PC(#) MAIN BLK G737EOG-D
2-A	BA-V1190A610A	PC(#)PRE-HIFI BLK G705EA-D [EXCEPT EDG,EK,EOH-N/DN]
2-B	BA-V1190V610B	NS PC#PRE-HIFI BLK G715EK-N/NS [EK,EOH-N/DN]
2-C	BA-V1190A610K	PC(#)PRE-HIFI BLK G711EDG [EDG]
3-A	BA-431035N	POWER G735EO-D [EXCEPT EA,EDG]
3-B	BA-428302N1	POWER G725EA-D [EA,EDG]
4-A	BA-V1190Q650A	FR PC D-NICAM BLK G715EK-N/FR [EK]
4-B	BA-V1190V650B	NS PC D-NICAM BLK G715EOH-N [EOH-N]
4-C	BA-V1190V650C	NS PC D-NICAM BLK G715EOHDN(Y2) [EOH-DN]

PC (#) MAIN BLK CONSISTS OF FOLLOWING P.C. BOARDS.

- MAIN P.C. BOARD
- TR (A) P.C. BOARD
- TR (B) P.C. BOARD
- VIF UNIT

PC (#) PRE-HIFI BLK CONSISTS OF FOLLOWING P.C. BOARDS.

- PRE-AMP & HIFI P.C. BOARD
- OSC P.C. BOARD

6. MAIN P.C. BOARD

Ref. No.	Part No.	Description
C310	⚠ EC-416655J	C DBL.LAYER T05 FM0H473Z 5.5DC
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131 [EXCEPT EK]
D6	ED-307572	D SILICON H 1SS131 [EXCEPT EK]
D8	ED-307572	D SILICON H 1SS131 [EXCEPT EA,EK,EO]
D9	ED-367502	D ZENER H HZS9A1L [EXCEPT EA,EK,EO]
D10	ED-307572	D SILICON H 1SS131 [EXCEPT EA,EDG,EK]
D11	ED-307572	D SILICON H 1SS131 [EXCEPT EA,EDG,EK]
D12	ED-387919J	D ZENER H HZS6A1L
D13	ED-307572	D SILICON H 1SS131
D201	ED-397233J	D ZENER H HZS5C3
D202	⚠ ED-422519J	D ZENER H MTZJ4.3B T26
D203	ED-307572	D SILICON H 1SS131
D205	ED-425442J	D ZENER H MTZJ13A T26
D206	ED-307572	D SILICON H 1SS131
D207	ED-307572	D SILICON H 1SS131
D299	ED-307572	D SILICON H 1SS131 [EA,EO,EOH-DN[Y2],G720EOH-D]
D301	ED-307572	D SILICON H 1SS131
D302	ED-307572	D SILICON H 1SS131
D303	ED-425605J	D ZENER H MTZJ4.7B T26
D304	ED-404220J	D ZENER H MTZJ9.1B T26
D305	ED-307572	D SILICON H 1SS131
D306	ED-422519J	D ZENER H MTZJ4.3B T26
D307	ED-307572	D SILICON H 1SS131
D402	ED-405604J	D ZENER H MTZJ4.3C T26
D403	ED-307572	D SILICON H 1SS131
D404	⚠ ED-511907	D SILICON 1N4002 100/1.0A
D405	⚠ ED-511907	D SILICON 1N4002 100/1.0A
D406	⚠ ED-511907	D SILICON 1N4002 100/1.0A
D407	⚠ ED-511907	D SILICON 1N4002 100/1.0A
D408	ED-422251J	D LED GL528VTB INFRARED T05
D409	ED-390012J	D LED GL4800 INFRARED
D410	ED-390012J	D LED GL4800 INFRARED
D411	ED-427218J	D ZENER H MTZJ6.2C T26
D601	ED-307572	D SILICON H 1SS131
D603	ED-307572	D SILICON H 1SS131 [EDG]
D604	ED-307572	D SILICON H 1SS131
D605	ED-307572	D SILICON H 1SS131
D606	ED-307572	D SILICON H 1SS131
D607	ED-307572	D SILICON H 1SS131
D609	ED-307572	D SILICON H 1SS131
DL601	EH-416491J	DL EFDJLA13A [EXCEPT EOG]
FL602	EO-422362J	COIL TUN 1 V1184-049B VCO
FR201	⚠ ER-408829J	R FUSE V T05 RF25SCVTP1/4WR11K
FR202	⚠ ER-400728J	R FUSE V T05 RF25SCVTP1/4WR12K
FR401	⚠ ER-418648J	R FUSE V T05 RF25SCVTP1/4WR24K
FR402	⚠ ER-418648J	R FUSE V T05 RF25SCVTP1/4WR24K
FR403	⚠ ER-425269J	R FUSE H S10 RF25SC 1/4W R47K
IC1	EI-389622J	IC L5631
IC2	⚠ EI-422131J	IC AN7809F
IC201	⚠ EI-418723J	IC NJM4558DX
IC301	EI-425246J2	(IC UPD75217GF654-3BE AHXOPP3)
IC302	EI-416691J	IC XC61AC3002TH T05
IC401	EI-425324J1	IC M37770M4H-163FP AHXSYP2
IC402	EI-425668J	IC 24LC02B/SN
IC403	EI-425537J	IC LA6358NM
IC404	EI-403233J	IC LB1641
IC601	EI-422151J1	IC AN3558FBSA
IC602	EI-394856J	IC LC8992
IC603	EI-419157J	IC LC74760-9044
IC604	EI-422090J	IC SAA5233P [EXCEPT EA,EO,EOH-DN[Y2],G720EOH-D]
IF1-A	BV-422570J1	VIF UNIT AHX EA
IF1-B	BV-422132J1	VIF UNIT AX EDG
IF1-C	BV-428126J1	VIF UNIT GHX EOHN [EOH-N/DN]
IF1-D	BV-427235J1	VIF UNIT AHX TEK EOG [EOH-D,EOG]
IF1-E	BV-428124J1	VIF UNIT GHX EK
IF1-F	BV-428125J1	VIF UNIT GHX EO
L1	EO-381189J	COIL FIX 1 EL0405SKI 100K
L3	EO-376860	COIL FIX 1 LF-5.0S F05 820K [EXCEPT EK]
L4	EO-381189J	COIL FIX 1 EL0405SKI 100K [EXCEPT EA,EK,EO]
L5	EO-381189J	COIL FIX 1 EL0405SKI 100K [EA,EK,EO]
L201	⚠ EO-422134J	COIL FIX 2 PC7-330K 330K
L202	⚠ EO-422134J	COIL FIX 2 PC7-330K 330K
L203	EO-422134J	COIL FIX 2 PC7-330K 330K
L301	EO-381189J	COIL FIX 1 EL0405SKI 100K
L402	EO-392660J	COIL FIX 1 EL0405SKI 220K
L403	EO-404430J	COIL FIX 1 SPT0203SA T26 101J
L601	EO-418521J	COIL FIX 1 LAP02TA T26 121J
L602	EO-404430J	COIL FIX 1 SPT0203SA T26 101J
L603	EO-410090J	COIL FIX 1 SPT0203SA T26 8R2J
L604	EO-414622J	COIL FIX 1 EL0607RA T05 101K
L605	EO-418521J	COIL FIX 1 LAP02TA T26 121J
L606	EO-414616J	COIL FIX 1 LAP02TA T26 270J
L609	EO-410089J	COIL FIX 1 SPT0203SA T26 6R8J
L610	EO-345881	COIL FIX 1 EL0606SKI 101J
L611	EO-410100J	COIL FIX 1 SPT0203SA T26 560J
L612	EO-414622J	COIL FIX 1 EL0607RA T05 101K
L613	EO-410100J	COIL FIX 1 SPT0203SA T26 560J
L614	EO-410103J	COIL FIX 1 SPT0203SA T26 151J
L615	EO-410090J	COIL FIX 1 SPT0203SA T26 8R2J
L616	EO-388087J	COIL FIX 1 LF-5.0S F05 331K
L617	EO-410100J	COIL FIX 1 SPT0203SA T26 560J
L618	EO-410093J	COIL FIX 1 SPT0203SA T26 150J
L619	EO-376616	COIL FIX 1 LF-5.0S F05 221K
L620	EO-410094J	COIL FIX 1 SPT0203SA T26 180J
L621	EO-410101J	COIL FIX 1 SPT0203SA T26 680J
L622	EO-410093J	COIL FIX 1 SPT0203SA T26 150J [EXCEPT EOG]
L623	EO-410089J	COIL FIX 1 SPT0203SA T26 6R8J
L624	EO-410091J	COIL FIX 1 SPT0203SA T26 100J
L625	EO-345876	COIL FIX 1 EL0606SKI 470J
L626	EO-412317J	COIL FIX 1 LAP02TA T26 4R7J [EXCEPT EA,EO,EOH-DN[Y2],G720EOH-D]
L627	EO-416714J	COIL FIX 1 LAP02TA T26 470J
L628	EO-414616J	COIL FIX 1 LAP02TA T26 270J
L630	EO-418521J	COIL FIX 1 LAP02TA T26 121J
L801	EO-410091J	COIL FIX 1 SPT0203SA T26 100J [EOH-N,EO,EOG]
MD1-A	BV-428414J	RF CONVERTER MDLK6D999A EO [EXCEPT EA,EDG,EK]
MD1-B	BV-387610J1	RF CONVERTER YAA21-0809G EA [EA]
MD1-C	BV-425222J	RF CONVER. YAA21-1001G G/K EDG [EDG]
MD1-D	BV-403410J	RF CONVERTER MDLK6B733A EK [EK]
P316	EJ-422578J	PLUG TRC-X10P-A2 10P
P317	EJ-422579J	PLUG TRC-X24P-A2 24P
P401	EJ-422061J	SOCKET 00 6216 018 100 18P
P420	EJ-422178J	PLUG TKC-G08P-A1 8P
P453	EJ-422176J	PLUG TKC-M07P-B1 7P
P603	EJ-422563J	SOCKET HLEM16R-1 16P
SW401	ES-426275J	SW MICRO ESE11SV1A
SW402	ES-426275J	SW MICRO ESE11SV1A
TH201	⚠ EX-412521J	THERMISTOR 911P83E101NH07 T05
TR1	ET-414836J	TR C.UN2213 TXT08E [EA]
TR2	ET-416932J	TR C.2SB709A R,S TXT08E [EA]
TR3	ET-397160J	TR 2SC3330 R,S,T,U,V [EXCEPT EK]
TR4	ET-416933J	TR C.2SD601A R,S TXT08E
TR6	ET-416932J	TR C.2SB709A R,S TXT08E
TR7	ET-414816J	TR 2SC2668 Y T05
TR8	ET-353899	TR 2SA1317 S,T,U

Ref. No.	Part No.	Description
TR9	ET-353899	TR 2SA1317 S,T,U [EXCEPT EK]
TR10	ET-353899	TR 2SA1317 S,T,U [EXCEPT EK]
TR11	ET-416932J	TR C.2SB709A R,S TXT08E [EXCEPT EK]
TR12	ET-421941J	TR UN4213 T05 [EXCEPT EK]
TR13	ET-421941J	TR UN4213 T05 [EXCEPT EK]
TR14	ET-397160J	TR 2SC3330 R,S,T,U,V [EXCEPT EA,EK,EO]
TR15	ET-360400	TR UN4210 [EXCEPT EA,EK,EO]
TR16	ET-421939J	TR UN4211 T05
TR17	ET-397160J	TR 2SC3330 R,S,T,U,V
TR18	ET-397160J	TR 2SC3330 R,S,T,U,V
TR19	ET-353899	TR 2SA1317 S,T,U [EA,EK,EO]
TR20	ET-397160J	TR 2SC3330 R,S,T,U,V
TR21	ET-416932J	TR C.2SB709A R,S TXT08E
TR201	ET-422464J	TR C.2SD2118 Q,R,S FPTLT16E
TR203	⚠ ET-404498J	TR 2SB1306 Q,R T05
TR205	⚠ ET-422154J	TR 2SB1426 Q,R T05
TR206	ET-368786	TR DTC143ZS T05
TR207	ET-368786	TR DTC143ZS T05 [EXCEPT EA,EO,EOH-DN[Y2],G720EOH-D]
TR209	ET-368786	TR DTC143ZS T05
TR210	ET-353899	TR 2SA1317 S,T,U
TR299	ET-416933J	TR C.2SD601A R,S TXT08E [EA,EO,EOH-DN[Y2],G720EOH-D]
TR301	ET-421941J	TR UN4213 T05
TR302	ET-422031J	TR UN4210 R,S T05
TR303	ET-415140J	TR DTA115TS T05
TR304	ET-422254J	TR UN4117 R,S T05
TR401	ET-421990J	TR C.UN2211 TXT08E
TR402	ET-419710J	TR UN4113 T05
TR403	ET-414836J	TR C.UN2213 TXT08E
TR404	ET-353899	TR 2SA1317 S,T,U
TR405	ET-390009J	TR PHOTO PT493F
TR406	ET-390009J	TR PHOTO PT493F
TR407	ET-390010J	TR PHOTO PT4800
TR408	ET-390010J	TR PHOTO PT4800
TR409	ET-353899	TR 2SA1317 S,T,U
TR410	ET-421977J	TR C.UN2113 TXT08E
TR411	⚠ ET-422154J	TR 2SB1426 Q,R T05
TR412	ET-421990J	TR C.UN2211 TXT08E
TR413	ET-421977J	TR C.UN2113 TXT08E
TR414	ET-421990J	TR C.UN2211 TXT08E
TR601	ET-414836J	TR C.UN2213 TXT08E
TR603	ET-397160J	TR 2SC3330 R,S,T,U,V
TR604	ET-421941J	TR UN4213 T05
TR608	ET-416933J	TR C.2SD601A R,S TXT08E
TR611	ET-416933J	TR C.2SD601A R,S TXT08E
TR612	ET-421974J	TR C.UN2111 R,S TXT08E [EDG]
TR617	ET-421945J	TR UN4216 R,S T05
TR618	ET-414836J	TR C.UN2213 TXT08E
TR619	ET-353899	TR 2SA1317 S,T,U
TR620	ET-416932J	TR C.2SB709A R,S TXT08E
TR621	ET-421984J	TR C.UN211D TXT08E
TR623	ET-416933J	TR C.2SD601A R,S TXT08E
TR624	ET-421999J	TR C.UN221D TXT08E
TR625	ET-397160J	TR 2SC3330 R,S,T,U,V
TR626	ET-397160J	TR 2SC3330 R,S,T,U,V
TR627	ET-353899	TR 2SA1317 S,T,U
TR628	ET-416933J	TR C.2SD601A R,S TXT08E
TR629	ET-421941J	TR UN4213 T05
TR630	ET-364040	TR UN421D
TR631	ET-421944J	TR UN4215 R,S T05
TR633	ET-397160J	TR 2SC3330 R,S,T,U,V
TR634	ET-414836J	TR C.UN2213 TXT08E
TR635	ET-421999J	TR C.UN221D TXT08E
TR636	ET-414836J	TR C.UN2213 TXT08E
TR637	ET-422254J	TR UN4117 R,S T05 [EDG]
TR639	ET-414836J	TR C.UN2213 TXT08E [EDG]
TR640	ET-353899	TR 2SA1317 S,T,U
TR642	ET-416933J	TR C.2SD601A R,S TXT08E
TR643	ET-353899	TR 2SA1317 S,T,U
TR644	ET-416932J	TR C.2SB709A R,S TXT08E
TR647	ET-416932J	TR C.2SB709A R,S TXT08E
TR648	ET-416932J	TR C.2SB709A R,S TXT08E
TR649	ET-397160J	TR 2SC3330 R,S,T,U,V
TR650	ET-397160J	TR 2SC3330 R,S,T,U,V
TR652	ET-421941J	TR UN4213 T05
TR653	ET-421941J	TR UN4213 T05
TR654	ET-414836J	TR C.UN2213 TXT08E
TR655	ET-416932J	TR C.2SB709A R,S TXT08E
TR657	ET-421984J	TR C.UN211D TXT08E
TU1-A	EE-416524J1	TV TUNER TEKE4-034B EOG [EXCEPT EA,EK,EO]
TU1-B	EE-387600J2	TV TUNER TERS1-002C EA [EA]
TU1-C	EE-428336J	TV TUNER TEKB1-014A EK [EK]
TU1-D	EE-428337J	TV TUNER TEKE1-078A EO [EO]
VR601	EV-389482J	R S-FIX H T05EVNDXAA03 0.1W682
VR602	EV-389478J	R S-FIX H T05EVNDXAA03 0.1W153
VR603	EV-389476J	R S-FIX H T05EVNDXAA03 0.1W103
VR604	EV-389476J	R S-FIX H T05EVNDXAA03 0.1W103
VR605	EV-397433J	R S-FIX H T05EVNDXAA03 0.1W152
VR607	EV-389476J	R S-FIX H T05EVNDXAA03 0.1W103
VR608	EV-389480J	R S-FIX H T05EVNDXAA03 0.1W332
X301	EI-418824J	OSC CE W/C FCR4.19MC5 4.190MHZ
X302	EI-431323N	OSC X'TAL C-002RX 32.768KHZ
X401	EI-425240J	OSC X'TAL APS-1011A 16.000MHZ
X601	EI-422510J	OSC X'TAL HC-49/U 4433.619KHZ
X602	EI-416872J	OSC X'TAL APS1004A 17.734475MH
X603	EI-422092J	OSC X'TAL APS1008 3RD27.000MHZ [EXCEPT EA,EO,EOH-DN[Y2],G720EOH-D]
1	SZ-426915J	HOLDER S/E SENSOR 2
2	SZ-420136J	HOLDER PHOTO SENSOR
3	SZ-423208J	HOLDER LED

7. TR (A) P.C. BOARD

Ref. No.	Part No.	Description
TR202	⚠ ET-422511J	TR 2SD2375 P

8. TR (B) P.C. BOARD

Ref. No.	Part No.	Description
TR399	⚠ ET-422511J	TR 2SD2375 P

9. VIF UNIT (EXCEPT EDG)

Ref. No.	Part No.	Description
CF1-A	EH-732529J	FILTER CE SAF31.4MC70Z [EA]
CF1-B	EH-733748J	FILTER CE SAF33.0MC70Z [EOH-N/DN]
CF1-C	EH-732528J	FILTER CE SAF33.4MC70Z [EOH-D,EO,EOG]
CF1-D	EH-733747J	FILTER CE SAF32.9MC70Z [EK]
CF2-A	EH-373916	FILTER CE SAF36.9MZ70Z [EA]
CF2-B	EH-730625J	FILTER CE SAF38.9MZW70Z [EOH,EO,EOG]
CF2-C	EH-373917	FILTER CE SAF39.5MZ70Z [EK]
CF3-A	EH-368948J1	FILTER CE TPS5.5MW 5.5000MHZ [EA,EOH,EO,EOG]
CF3-B	EH-733749J	FILTER CE TPS6.0MB2 [EK]
CF4-A	EH-394948J1	FILTER CE SFT5.5MA [EOH-N/DN]
CF4-B	EH-416920J1	FILTER CE SFT6.0MA [EK]
IC1-A	EI-729997J	IC LA7575 [EA,EOH-D,EO,EOG]
IC1-B	EI-427370J	IC LA7577 [EK,EOH-N/DN]
L1	EO-725824J	COIL 6F16185A1 [EOH,EO,EOG]
L2	EO-725825J	COIL 6F16186A1 [EOH,EO,EOG]
L3-A	EO-381188J	COIL FIX 1 EL0405SKI 1R0K [EA]
L3-B	EO-428258J	COIL FIX 1 EL0405SKI R82K [EO]
L4-A	EO-392817J	COIL FIX 1 EL0405SKI 1R2K [EA,EOH-D,EOG]
L4-B	EO-381188J	COIL FIX 1 EL0405SKI 1R0K [EK,EOH-N/DN]
L4-C	EO-388160J	COIL FIX 1 EL0405SKI 1R8K [EO]
L5	EO-388160J	COIL FIX 1 EL0405SKI 1R8K [EA,EOH-N/DN,EK,EO]
L6-A	EO-733514J	COIL 6F16437A1 [EOH-N/DN]
L6-B	EO-388160J	COIL FIX 1 EL0405SKI 1R8K [EOH-D,EOG]
L6-C	EO-732831J	COIL 6F16437A2 [EK]
L7-A	EO-732832J	COIL 6F16435A1 [EOH,EK,EO,EOG]
L7-B	EO-733515J	COIL 6F16436A2 [EA]
L8-A	EO-732656J	COIL OSC 6F16403B1 [EOH,EK,EO,EOG]
L8-B	EO-732526J	COIL OSC 6F16403A2 [EA]
L9	EO-387781J	COIL FIX 1 EL0405SKI 120K
L10	EO-381196J	COIL FIX 1 EL0405SKI 470K
Q1	ET-731437J	TR CHIP DTC114EK [EOH,EO,EOG]
Q2	ET-731437J	TR CHIP DTC114EK [EOH,EO,EOG]
Q3	ET-725820J	TR CHIP 2SC2735J
Q6	ET-370819	TR C.2SC3052
Q7	ET-370818	TR C.2SA1235 [EK,EOH-N/DN]
VR1	EV-404266J	R S-FIX H RH0681C 0.30W 223
VR2	EV-404266J	R S-FIX H RH0681C 0.30W 223 [EOH,EO,EOG]
VR3	EV-733548J	R S-FIX H RH063EC14R015 103 [EK,EOH-N/DN]

10. VIF UNIT (EDG)

Ref. No.	Part No.	Description
CF1	EH-733563J	FILTER CE SAF38.9MZC70Z
CF2	EH-376338J1	FILTER CE TPS6.5MB
CF3	EH-368948J1	FILTER CE TPS5.5MW 5.5000MHZ
CF4	EH-729986J	FILTER CE TPS5.5MB2
CF51	EH-412432J	FILTER CE SFSH6.5MDB 6.500MHZ
CF52	EH-368827	FILTER CE SFS5.5MD 5.500MHZ
CF53	EH-373921J1	FILTER CE SFE6.0MB
IC1	EI-368809	IC M51496P
L1	EO-387782J	COIL FIX 1 EL0405SKI 2R2K
L2	EO-732831J	COIL 6F16437A2
L3	EO-732832J	COIL 6F16435A1
L4	EO-732833J	COIL 6F16436A1
L5	EO-397238J	COIL FIX 1 EL0405SKI 6R8K
L6	EO-387798J	COIL FIX 1 EL0405SKI 150K
L51	EO-396361J	COIL FIX 1 EL0405SKI 8R2K
L52	EO-387803J	COIL FIX 1 EL0405SKI 221K
Q1	ET-725820J	TR CHIP 2SC2735J
Q2	ET-370818	TR C.2SA1235
Q3	ET-370819	TR C.2SC3052
Q4	ET-370818	TR C.2SA1235
Q51	ET-370819	TR C.2SC3052
Q52	ET-370819	TR C.2SC3052
VR1	EV-389479J	R S-FIX H T05EVNDXAA03 0.1W223
VR2	EV-396023J	R S-FIX H T05EVNDXAA03 0.1W222
X1	EI-368829	OSC CE CSB512P

11. IN/OUT (A) P.C. BOARD

Ref. No.	Part No.	Description
D2	ED-307572	D SILICON H 1SS131 [EXCEPT EA]
D3	ED-307572	D SILICON H 1SS131 [EXCEPT EA]
PJ1	EJ-389864J	SOCKET M1817 21P [EXCEPT EA]
PJ2	EJ-389915J	SOCKET M1817-A 21P [EDG,EOH-D/DN,EOG]
PJ3	EJ-422097J	PIN J JPJ1131-010040 1P [EA]
PJ4	EJ-418853J	PIN J JPJ1131-010030 1P [EA]
PJ5	EJ-418854J	PIN J JPJ1131-010020 1P [EA]
PJ6	EJ-422552J	PIN J JPJ2202-01-040 1P [EA]
PJ7	EJ-422553J	PIN J JPJ2202-01-030 1P
PJ8	EJ-422554J	PIN J JPJ2202-01-020 1P
TR1	ET-397160J	TR 2SC3330 R,S,T,U,V [EXCEPT EA]
TR2	ET-397160J	TR 2SC3330 R,S,T,U,V [EXCEPT EA]
TR3	ET-397160J	TR 2SC3330 R,S,T,U,V [EDG,EOH-D/DN,EOG]
TR4	ET-397160J	TR 2SC3330 R,S,T,U,V [EDG,EOH-D/DN,EOG]
TR5	ET-397160J	TR 2SC3330 R,S,T,U,V [EA]
TR6	ET-397160J	TR 2SC3330 R,S,T,U,V [EA]

12. IN/OUT (B) P.C. BOARD

Ref. No.	Part No.	Description
IC102	EI-408961J	IC MM1031XS [EDG,EOH-D/DN,EOG]
IC103	EI-332259	IC TC4052BP
IC104	EI-416646J	IC MM1113XS
L101	EO-345880	COIL FIX 1 EL0606SKI 820J
L102	EO-345880	COIL FIX 1 EL0606SKI 820J
L103	EO-345880	COIL FIX 1 EL0606SKI 820J
TR101	ET-421941J	TR UN4213 T05
TR102	ET-421941J	TR UN4213 T05
TR103	ET-353899	TR 2SA1317 S,T,U

13. IN/OUT (C) P.C. BOARD

Ref. No.	Part No.	Description
D201	ED-307572	D SILICON H 1SS131
D202	ED-307572	D SILICON H 1SS131 [EXCEPT EA]
IC207	EI-310036	IC TC4066BP [EDG,EOH-D/DN,EOG]
IC208	EI-416647J	IC MM1111XS [EDG,EOH-D/DN,EOG]
TR201	ET-397160J	TR 2SC3330 R,S,T,U,V
TR202	ET-397160J	TR 2SC3330 R,S,T,U,V
TR203	ET-419712J	TR UN4115 R,S T05
TR204	ET-421944J	TR UN4215 R,S T05
TR205	ET-421941J	TR UN4213 T05 [EDG,EOH-D/DN,EOG]
TR251	ET-419710J	TR UN4113 T05 [EDG,EOH-D/DN,EOG]
TR252	ET-421941J	TR UN4213 T05 [EDG,EOH-D/DN,EOG]
TR253	ET-422031J	TR UN4210 R,S T05 [EDG,EOH-D/DN,EOG]
TR256	ET-419710J	TR UN4113 T05 [EXCEPT EA]
TR258	ET-421941J	TR UN4213 T05 [EXCEPT EA]

14. SECAM DET & NTSC P.C. BOARD (EDG)

Ref. No.	Part No.	Description
D321	ED-307572	D SILICON H 1SS131
D351	ED-307572	D SILICON H 1SS131
IC311	EI-366892	IC BA7025L
IC351	EI-200573	IC TC4053BP
IC352	EI-356457	IC BU4013B
L311	EO-368129	COIL FIX 1 TL-8 153J
SF311	EH-366894J1	FILTER CE SFE-4.16MB 4.16MHZ
TR311	ET-397160J	TR 2SC3330 R,S,T,U,V
TR351	ET-421941J	TR UN4213 T05
TR352	ET-397160J	TR 2SC3330 R,S,T,U,V
TR353	ET-397160J	TR 2SC3330 R,S,T,U,V
TR354	ET-397160J	TR 2SC3330 R,S,T,U,V
TR355	ET-397160J	TR 2SC3330 R,S,T,U,V

15. PRE-AMP & HIFI P.C. BOARD

Ref. No.	Part No.	Description
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
D6	ED-307572	D SILICON H 1SS131
D106	ED-307572	D SILICON H 1SS131
D108	ED-428020J	D SCHOTTKY CHIP MA716 TXT08E
D110	ED-307572	D SILICON H 1SS131 [EDG]
D111	ED-419028J	D SILICON CHIP MA152WK TXT08E
D112	ED-410157J	D SILICON CHIP MA152WA [EDG]
IC1	EI-416607J	IC AN3386NK-A
IC101	EI-425194J	IC AN3963NFBPA
IC102	EI-425189J	IC AN3317K
L1	EO-414622J	COIL FIX 1 EL0607RA T05 101K
L3	EO-412304J	COIL FIX 1 LAP02TA T26 390J
L6	EO-376600	COIL FIX 1 LF-5.0S F05 101K
L7	EO-410096J	COIL FIX 1 SPT0203SA T26 220J
L101	EO-376611	COIL FIX 1 LF-5.0S F05 470K
L102	EO-381196J	COIL FIX 1 EL0405SKI 470K
L103	EO-376611	COIL FIX 1 LF-5.0S F05 470K
L104	EO-392659J	COIL FIX 1 LHL06TB T05 562J
L107	EO-376611	COIL FIX 1 LF-5.0S F05 470K
L108	EO-400782J	COIL FIX 1 EL0606RA T05 222J
L109	EO-400782J	COIL FIX 1 EL0606RA T05 222J
L110	EO-376611	COIL FIX 1 LF-5.0S F05 470K
P3	EJ-422563J	SOCKET HLEM16R-1 16P
P101	EJ-422061J	SOCKET 00 6216 018 100 18P
P129	EJ-422094J1	SOCKET TKC-F06X-E1 6P
P130	EJ-422569J1	SOCKET TKC-F12X-E1 12P
TH1	⚠ EX-405691J	THERMISTOR NTH5D332KA
TR4	ET-416932J	TR C.2SB709A R,S TXT08E
TR5	ET-416933J	TR C.2SD601A R,S TXT08E
TR6	ET-416933J	TR C.2SD601A R,S TXT08E
TR7	ET-414836J	TR C.UN2213 TXT08E
TR8	ET-416933J	TR C.2SD601A R,S TXT08E
TR9	ET-416932J	TR C.2SB709A R,S TXT08E
TR10	ET-421993J	TR C.UN2215 R,S TXT08E
TR13	ET-414836J	TR C.UN2213 TXT08E
TR14	ET-414836J	TR C.UN2213 TXT08E
TR15	ET-414836J	TR C.UN2213 TXT08E
TR16	ET-421979J	TR C.UN2115 R,S TXT08E
TR101	ET-421993J	TR C.UN2215 R,S TXT08E
TR102	ET-414836J	TR C.UN2213 TXT08E
TR103	ET-421977J	TR C.UN2113 TXT08E
TR104	ET-421993J	TR C.UN2215 R,S TXT08E
TR105	ET-421993J	TR C.UN2215 R,S TXT08E [EK,EOH-N/DN]
TR106	ET-421993J	TR C.UN2215 R,S TXT08E
TR108	ET-414836J	TR C.UN2213 TXT08E
TR112	ET-421990J	TR C.UN2211 TXT08E
TR115	ET-416932J	TR C.2SB709A R,S TXT08E
TR116	ET-421991J	TR C.UN2212 TXT08E
TR118	ET-416932J	TR C.2SB709A R,S TXT08E
TR119	ET-416932J	TR C.2SB709A R,S TXT08E
TR120	ET-421991J	TR C.UN2212 TXT08E
TR121	ET-421991J	TR C.UN2212 TXT08E
TR122	ET-427131J	TR C.DTA115TK
TR126	ET-421991J	TR C.UN2212 TXT08E [EDG]
TR127	ET-422000J	TR C.UN221E TXT08E [EDG]
TR131	ET-421991J	TR C.UN2212 TXT08E [EDG]
TR132	ET-421989J	TR C.UN2210 R,S TXT08E
TR133	ET-421989J	TR C.UN2210 R,S TXT08E [EK,EOH-N/DN]
VR1	EV-408710J	R S-FIX V T05EVNDCAA03 0.1W472
VR101	EV-389482J	R S-FIX H T05EVNDXAA03 0.1W682
VR102	EV-389489J	R S-FIX H T05EVNDXAA03 0.1W472

16. OSC P.C. BOARD

Ref. No.	Part No.	Description
D101	ED-307572	D SILICON H 1SS131
D104	ED-427158J	D SILICON CHIP MA153A TXT08E
FL101	EO-418829J	COIL OSC 1 6062 70.0KHZ
IC103	EI-385995J	IC BA7755A
L106	EO-390716J	COIL FIX 1 LHL06TB T05 272J
TR109	ET-421990J	TR C.UN2211 TXT08E
TR110	ET-416933J	TR C.2SD601A R,S TXT08E
TR111	ET-416933J	TR C.2SD601A R,S TXT08E
TR117	ET-416932J	TR C.2SB709A R,S TXT08E

17. OPERATION P.C. BOARD

Ref. No.	Part No.	Description
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
D6	ED-307572	D SILICON H 1SS131
FL1	EM-429960J	IND FL FIP10CCM7A CHARACTER
PH1	ET-428361J	DETECTOR GP1U281X
P16	EJ-425180J	SOCKET TRC-X10X-A2 10P
P17	EJ-425181J	SOCKET TRC-X24X-A2 24P
SW1	ES-408405J	SW TACT EVQ 235 09K T05
SW2	ES-396610J	SW TACT SOR-122HS T05
SW3	ES-396610J	SW TACT SOR-122HS T05
SW4	ES-396610J	SW TACT SOR-122HS T05
SW5	ES-396610J	SW TACT SOR-122HS T05
SW6	ES-396610J	SW TACT SOR-122HS T05
SW7	ES-396610J	SW TACT SOR-122HS T05
SW8	ES-396610J	SW TACT SOR-122HS T05
SW9	ES-396610J	SW TACT SOR-122HS T05
SW10	ES 396610J	SW TACT SOR-122HS T05
SW11	ES-396610J	SW TACT SOR-122HS T05
SW12	ES-396610J	SW TACT SOR-122HS T05
TR1	ET-421952J	TR UN421L T05
TR8	ET-421952J	TR UN421L T05

18. FRONT P.C. BOARD

Ref. No.	Part No.	Description
D101	ED-307572	D SILICON H 1SS131
D102	ED-307572	D SILICON H 1SS131
L101	EO-414830J	COIL FIX 1 LAP02TA T26 220J [EXCEPT EA,EDG,EOH-N]
PJ101	EJ-422356J	PIN J JPJ4022-01-040 1P
PJ102-A	EJ-396453J	PIN J JPJ5022-01-030 1P [EA]
PJ102-B	EJ-428006J	PIN J JPJ2022-01-030 WHITE 1P [EXCEPT EA]
PJ103-A	EJ-396452J	PIN J JPJ5022-01-020 1P [EA]
PJ103-B	EJ-428008J	PIN J JPJ2022-01-020 RED 1P [EXCEPT EA]
TR101	ET-397160J	TR 2SC3330 R,S,T,U,V
TR102	ET-397160J	TR 2SC3330 R,S,T,U,V
TR103	ET-397160J	TR 2SC3330 R,S,T,U,V

19. POWER SUPPLY P.C. BOARD

Ref. No.	Part No.	Description
C1	⚠ EC-422101J	C MMY V CUT MKTR40 104M 275AC
C2	⚠ EC-422101J	C MMY V CUT MKTR40 104M 275AC
C3	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C4	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C5	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C6	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C7	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C8	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C9	⚠ EC-418706J	C CE V CUT CS11 E222M 400AC
C11	⚠ EC-422103J	C EC V CUT TWSS 470M400.0DC
C12	⚠ EC-418760J	C CE V T05 FK22 Y5R103K 500DC
C13	⚠ EC-418759J	C CE V T05 CC45 SL121K1000DC
C14	EC-418841J	C MMY V T05 ECQ-VL2 333J 50DC
C15	EC-418841J	C MMY V T05 ECQ-VL2 333J 50DC
C24	EC-418690J	C EC V CUT SXE12 222M 6.3DC
D1	⚠ ED-422125J	D SILICON 1N4006 T26 800/1.0A
D2	⚠ ED-422125J	D SILICON 1N4006 T26 800/1.0A
D3	⚠ ED-422125J	D SILICON 1N4006 T26 800/1.0A
D4	⚠ ED-422125J	D SILICON 1N4006 T26 800/1.0A
D5	⚠ ED-418976J	D SILICON EG01CW T05 1000/0.5A
D6	ED-307572	D SILICON H 1SS131
D7	ED-307572	D SILICON H 1SS131
D20	ED-425369J	D SCHOTTKY AK03V0 T26
D21	ED-425207J	D SILICON ERA18-02 T26
D24	ED-425207J	D SILICON ERA18-02 T26
D25	⚠ ED-422420J	D ZENER H MTZJ20C T26
D27	⚠ ED-422420J	D ZENER H MTZJ20C T26
D31	ED-307572	D SILICON H 1SS131
D32	ED-425369J	D SCHOTTKY AK03V0 T26
FR2	⚠ ER-428204J	R FUSE V T05RF25SVTP 1/4W 220J
F1	⚠ EF-601964	FUSE SET T 250V 1.60A
IC2	EI-422128J	IC TA76431S T05
L2	EO-418689J	COIL LF LF-4DA-333
PH1	⚠ ET-422113J	PHOTO COUPLER PS2561-1-V
P1	⚠ EJ-416590J1	SOCKET INLET CCT-2302-0371 2P
R1	⚠ ER-418739J	R CT P RGG3 3W 4R7K
R2	⚠ ER-422181J	R OMF H S20 FS ERG3SH 3W 823J
R6	⚠ ER-422186J	R OMF H S15 FS PR02 2W 151J
R7	⚠ ER-411836J	R OMF H S15 FS 2W 1R0J
R11	ER-318316	R MF H F10 1/4W 2201F
R12	ER-314600	R MF H 1/4W 1601F
TR1	⚠ ET-422118J	TR 2SC4304 O,Y
TR2	⚠ ET-422129J	TR 2SD2132 U,V T05
T1	⚠ BT-422117N	TRANS POW V1190 EOG

20. D-MULTI P.C. BOARD (EA,EOH-D,EO,EOG)

Ref. No.	Part No.	Description
FL1	EH-394947J1	FILTER CE SFT5.74MA
FL2	EH-394948J1	FILTER CE SFT5.5MA
IC1	EI-389644J	IC BA403
IC2	EI-389644J	IC BA403
IC3	EI-416611J	IC TDA8417
L1	EO-381189J	COIL FIX 1 EL0405SKI 100K
L2	EO-381189J	COIL FIX 1 EL0405SKI 100K
L3	EO-381189J	COIL FIX 1 EL0405SKI 100K
TR1	ET-397160J	TR 2SC3330 R,S,T,U,V
TR2	ET-397160J	TR 2SC3330 R,S,T,U,V
TR3	ET-397160J	TR 2SC3330 R,S,T,U,V
TR4	ET-397160J	TR 2SC3330 R,S,T,U,V
VR1	EV-394962J	R S-FIX H T05EVNDXAA03 0.1W102
X1	EI-425185J	OSC X'TALASP-1006 10.000MHZ

21. D-NICAM P.C. BOARD (EK,EOH-N/DN)

Ref. No.	Part No.	Description
FL1	EH-397511J	FILTER LC BP TH316BQKS-2982QDD [EOH-N/DN]
FL82	EH-382829J	FILTER LC BP TH316BQM-2110QDAF [EK]
FL101	EH-394947J1	FILTER CE SFT5.74MA [EOH-DN]
FL102	EH-394948J1	FILTER CE SFT5.5MA [EOH-DN]
IC1	EI-425190J1	IC TDA8204B
IC2	EI-425191J	IC TDA8205
IC101	EI-389644J	IC BA403 [EOH-DN]
IC102	EI-389644J	IC BA403 [EOH-DN]
IC103	EI-416611J	IC TDA8417 [EOH-DN]
L1	EO-381189J	COIL FIX 1 EL0405SKI 100K
L2	EO-345881	COIL FIX 1 EL0606SKI 101J
L3	EO-381189J	COIL FIX 1 EL0405SKI 100K
L4	EO-381189J	COIL FIX 1 EL0405SKI 100K
L5	EO-381189J	COIL FIX 1 EL0405SKI 100K
L6	EO-381189J	COIL FIX 1 EL0405SKI 100K
L101	EO-381189J	COIL FIX 1 EL0405SKI 100K [EOH-DN]
L102	EO-381189J	COIL FIX 1 EL0405SKI 100K [EOH-DN]
L103	EO-381189J	COIL FIX 1 EL0405SKI 100K [EOH-DN]
L802	EO-410091J	COIL FIX 1 SPT0203SA T26 100J [EOH-DN]
TR1	ET-397160J	TR 2SC3330 R,S,T,U,V [EOH-N/DN]
TR2	ET-397160J	TR 2SC3330 R,S,T,U,V [EOH-N/DN]
TR3	ET-421941J	TR UN4213 T05
TR4	ET-422031J	TR UN4210 R,S T05
TR5	ET-397160J	TR 2SC3330 R,S,T,U,V
TR6	ET-397160J	TR 2SC3330 R,S,T,U,V
TR81	ET-397160J	TR 2SC3330 R,S,T,U,V [EK]
TR82	ET-397160J	TR 2SC3330 R,S,T,U,V [EK]
TR101	ET-397160J	TR 2SC3330 R,S,T,U,V [EOH-DN]
TR102	ET-397160J	TR 2SC3330 R,S,T,U,V [EOH-DN]
VL101	EO-416928J	COIL TUN 1 V1173-035 5.74 [EOH-DN]
VL102	EO-416926J	COIL TUN 1 V1173-033 5.5 [EOH-DN]
VR101	EV-394962J	R S-FIX H T05EVNDXAA03 0.1W102 [EOH-DN]
X1	EI-425184J	OSC X'TALAPS-1007 11.648MHZ
X101	EI-425185J	OSC X'TALASP-1006 10.000MHZ [EOH-DN]

22. CDR P.C. BOARD (EOG)

Ref. No.	Part No.	Description
DL1	EH-422240J	DL ADL-SN2344Q
D1	ED-397614J	D ZENER H HZS9A3L T26
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
IC1	EI-422218J	IC M51494L
IC2	EI-400756J	IC NJM4558L-B
L1	EO-403270J	COIL FIX 1 EL0405RA T05 101J
L2	EO-403270J	COIL FIX 1 EL0405RA T05 101J
L3	EO-410091J	COIL FIX 1 SPT0203SA T26 100J
L4	EO-414616J	COIL FIX 1 LAP02TA T26 270J
TR1	ET-397160J	TR 2SC3330 R,S,T,U,V
TR3	ET-397160J	TR 2SC3330 R,S,T,U,V
TR4	ET-397160J	TR 2SC3330 R,S,T,U,V
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TR11	ET-353899	TR 2SA1317 S,T,U
TR12	ET-397160J	TR 2SC3330 R,S,T,U,V
TR13	ET-397160J	TR 2SC3330 R,S,T,U,V
TR14	ET-397160J	TR 2SC3330 R,S,T,U,V
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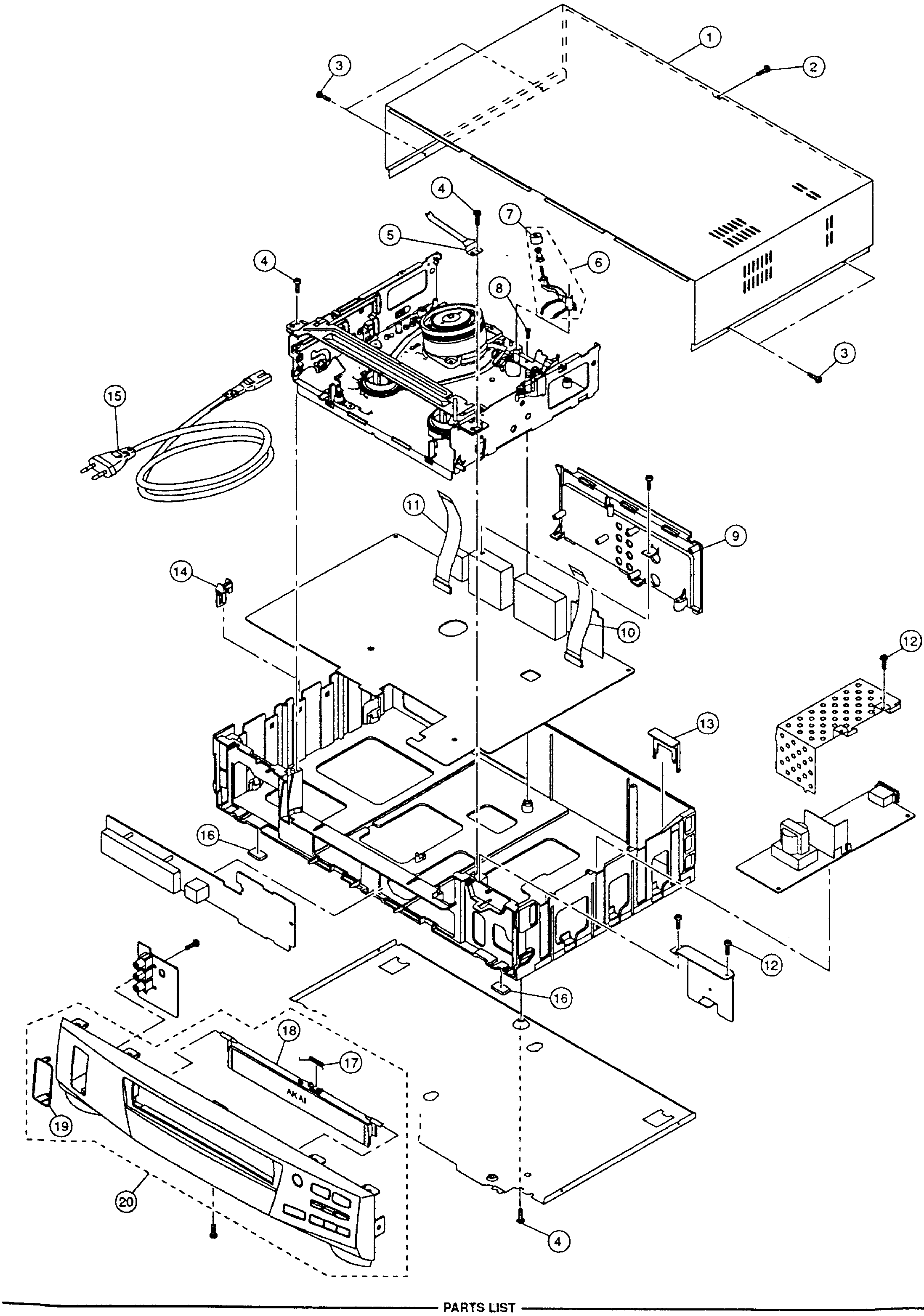
TR16	ET-353899	TR 2SA1317 S,T,U
TR17	ET-397160J	TR 2SC3330 R,S,T,U,V
VR3	EV-405248J	R S-FIX V T05EVNDCAA03 0.1W471
VR4	EV-403988J	R S-FIX V T05EVNDCAA03 0.1W102

FINAL ASSEMBLY BLOCK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23. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
1	SP-420296J	COVER UPPER AX
2	ZS-427134J	PT BID30X10STL BZN EARTH LOCK
3	ZS-385611J	DT BID26X06STL BNI
4	ZS-362378	PLX BID30X10STL CMT
5	MZ-420496N1	EARTH MECHA (SG)
6	HZ-V1182A200A	HEAD CLEANER BLK G204ES [EXCEPT EK]
7	HZ-417681J	ROLLER HEAD CLEANER(2) [EXCEPT EK]
8	ZS-357946	PLX PAN30X10STL CMT C080
9-A	SP-422608N1	PANEL REAR JACK EA-D (SG) [EA]
9-B	SP-429145N1	PANEL REAR JACK EDG(4) (SG) [EDG]
9-C	SP-422609N1	PANEL REAR JACK EOH-DN (SG) [EOH-N,EK,EO]
9-D	SP-422610N1	PANEL REAR JACK EOH-DN(2) (SG) [EOH-D/DN]
9-F	SP-429146N1	PANEL REAR JACK EOG-D(3) (SG) [EOG]
10	EW-419012J	CORD SHIELD FFC L150 18P
11	EW-422531J	CORD FFC BD P1.25 L150 16P
12	ZS-383379J	PLX BID30X08STL CMT
13	SZ-420495N	COVER INLET (SG)
14	SZ-420493N	HOLDER PC(1) (SG)
15-A	⚠ EW-412522J1	AC CORD200S KP419CKS15F B V [EXCEPT EA,EK]
15-B	⚠ EW-419250M	AC CORD 200 S SA-5SA-6 S [EA]
15-C	⚠ EW-419248M	AC CORD 200S SE-5 SE-6 B B [EK]
16	SA-420497J	FOOT AX
17	ZG-429460J	SP MASK(4)
18-A	SE-430037J	MASK CASSETTE VS-G735(E1) [EA]
18-B	SE-430115J	MASK CASSETTE VS-G735(E2) [EDG]
18-C	SE-430119J	MASK CASSETTE VS-G735(E6) [EOH-N/DN[Y2]]
18-D	SE-429583J	MASK CASSETTE VS-G720(E) [G720EOH-D]
18-E	SE-430035J	MASK CASSETTE VS-G725(E) [G725EOH-D]
18-F	SE-430116J	MASK CASSETTE VS-G735(E3) [EK]
18-G	SE-430117J	MASK CASSETTE VS-G735(E4) [EO]
18-H	SE-430118J	MASK CASSETTE VS-G735(E5) [EOH-DN[Y1]]
18-I	SE-430039J	MASK CASSETTE VS-G737(G) [EOG]
19-A	SC-429459J	DOOR JACK(F)E1 [EXCEPT EOG]
19-B	SC-430032J	DOOR JACK(F)G1 [EOG]
20-A	BD-430081J	PANEL F(F)G735EA-D PART
20-B	BD-430046J	PANEL F(F)G735EDG PART
20-C	BD-430050J	PANEL F(F)G735EOH PART [EOH-N/DN[Y2]]
20-D	BD-429580J	PANEL F(F)G720EOH-D PART
20-E	BD-430044J	PANEL F(F)G725EOH-D PART
20-F	BD-430047J	PANEL F(F)G735EK-N PART
20-G	BD-430048J	PANEL F(F)G735EO-D PART
20-H	BD-430049J	PANEL F(F)G735EOH-DN(Y1) PART
20-I	BD-430052J	PANEL F(F)G737EOG-D PART

NOTE :
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

24. ACCESSORY

Ref. No.	Part No.	Description
1	EW-348414	CORD PAL
2-A	AV-416974M	REMOCON RC-W600E [G720EOH]
2-B	AV-428322J	REMOCON RC-X516E [EK]
2-C	AV-428320J	REMOCON RC-X526E [G725EOH,G735EO/EOH]
2-D	AV-428318J	REMOCON RC-X526G [EOG]
2-E	AV-429918J	REMOCON RC-X536E [EA]
2-F	AV-428319J	REMOCON RC-X626E [EDG]
3	SC-733720J1	COVER BATTERY (GX) [EXCEPT RC-W600]
4-A	SP-733722J	LID AX VIDEO PLUS-1 [RC-X516]
4-B	SP-733723J	LID AX SHOWVIEW-1 [RC-X526]
4-C	SP-733750J	LID AX G-CODE-2 [RC-X536]
4-D	SP-733736J	LID AX SHOWVIEW-2(ENG) [RC-X626]
5	SK-734000J	KNOB SHUTTLE [RC-X626]
6	SK-734001J	KNOB JOG [RC-X626]

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EV389476J	6-VR607
EV389478J	6-VR602
EV389479J	10-VR1
EV389480J	6-VR608
EV389482J	6-VR601
EV389482J	15-VR101
EV389489J	15-VR102
EV394962J	20-VR1
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ZG420166N	3-52
ZG420167N1	3-50
ZG420169N1	3-34
ZG425178N	3-51-B
ZG426481N	3-51-A
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ZS321298	2-1
ZS336714	2-6
ZS357946	23-8
ZS358936	2-4
ZS358936	3-45
ZS358936	4-2
ZS362378	23-4
ZS362533	3-40
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ZS422170J	3-37
ZS425981	4-4
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AKAI

MODEL VS-G720EOH-D
MODEL VS-G725EOH-D
MODEL VS-G735EA-D/EDG/EK-N EO-D/EOH-DN/EOH-N
MODEL VS-G737EOG-D

SCHEMATIC DIAGRAMS AND PC BOARDS

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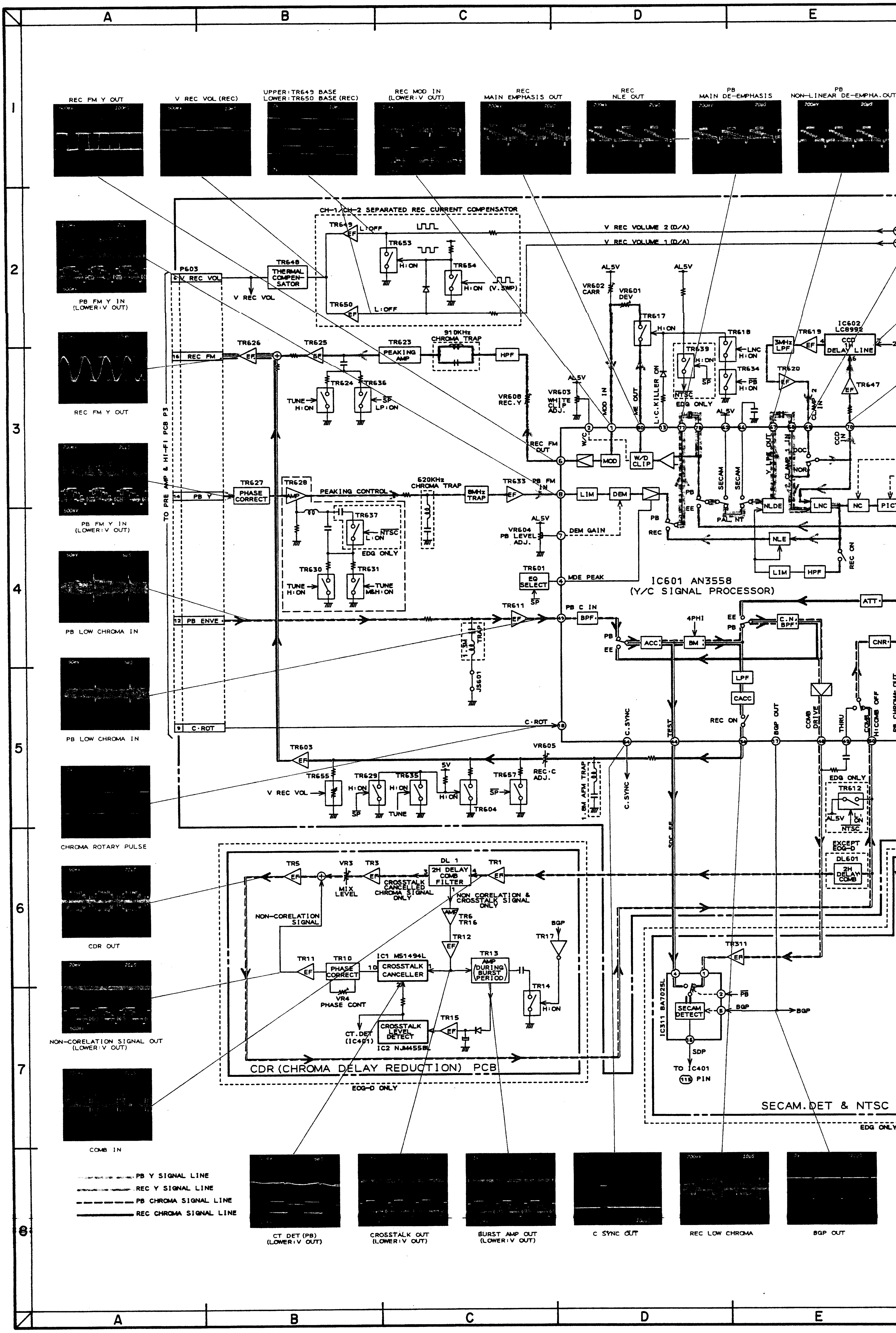
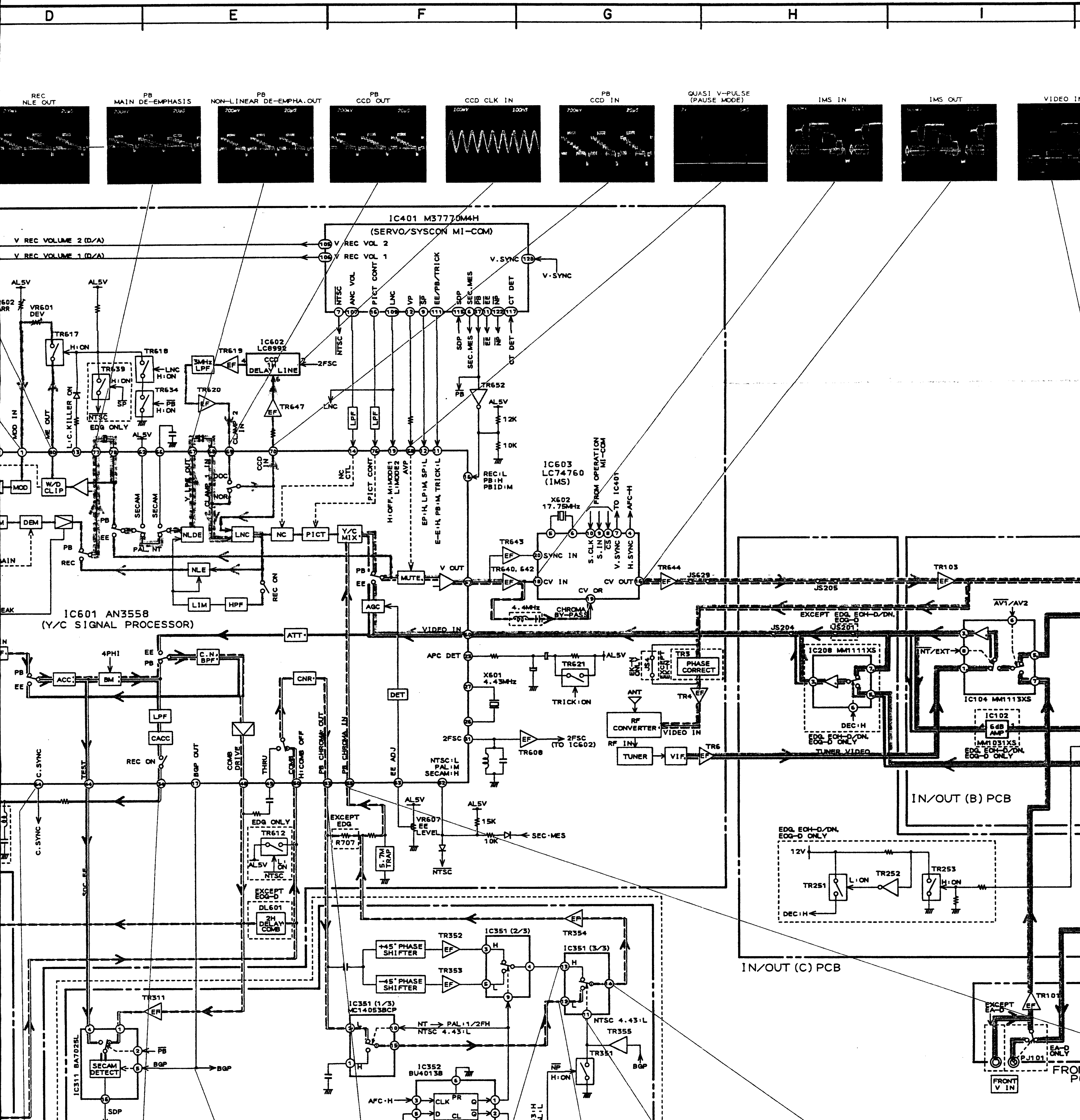
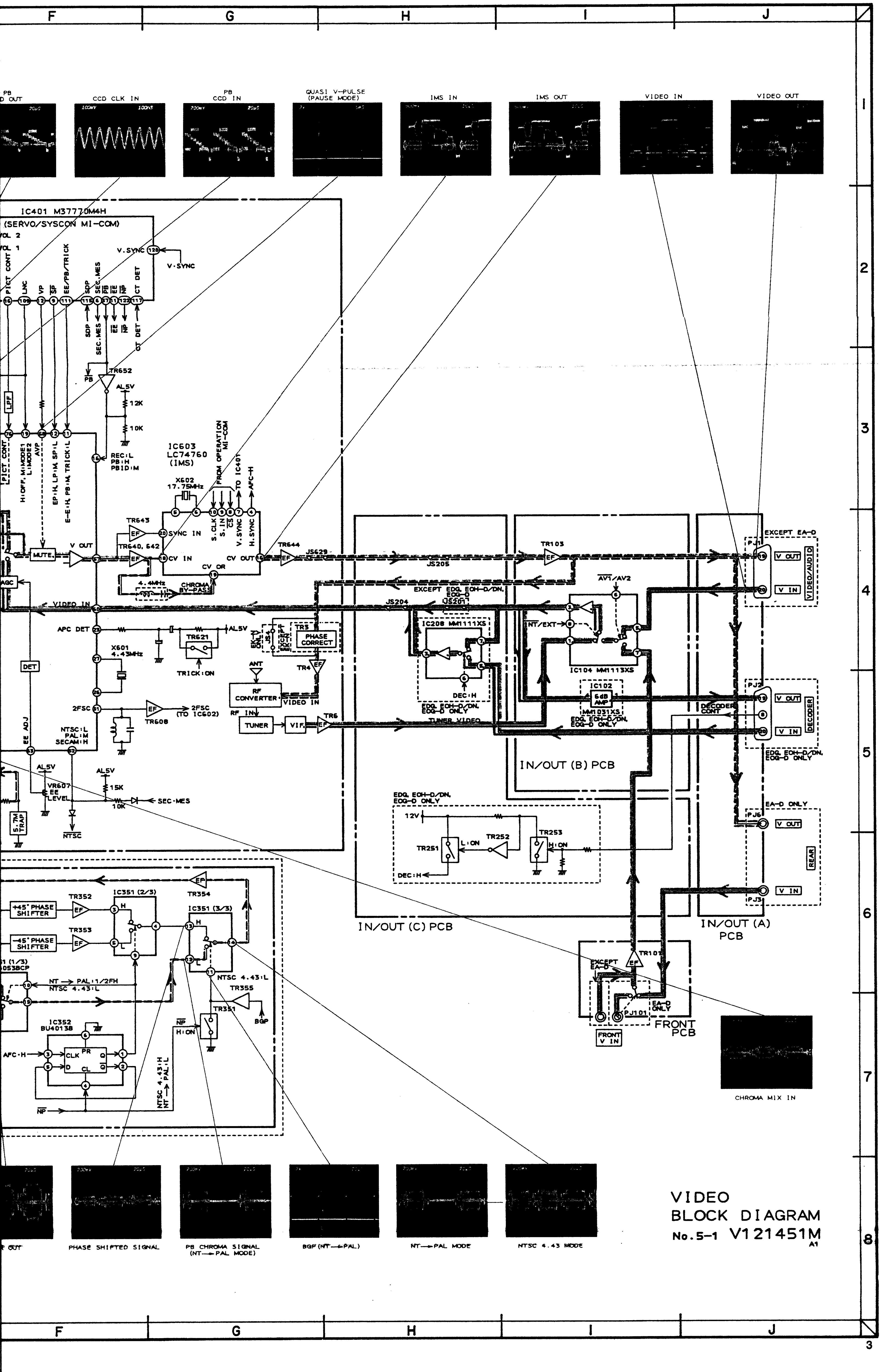
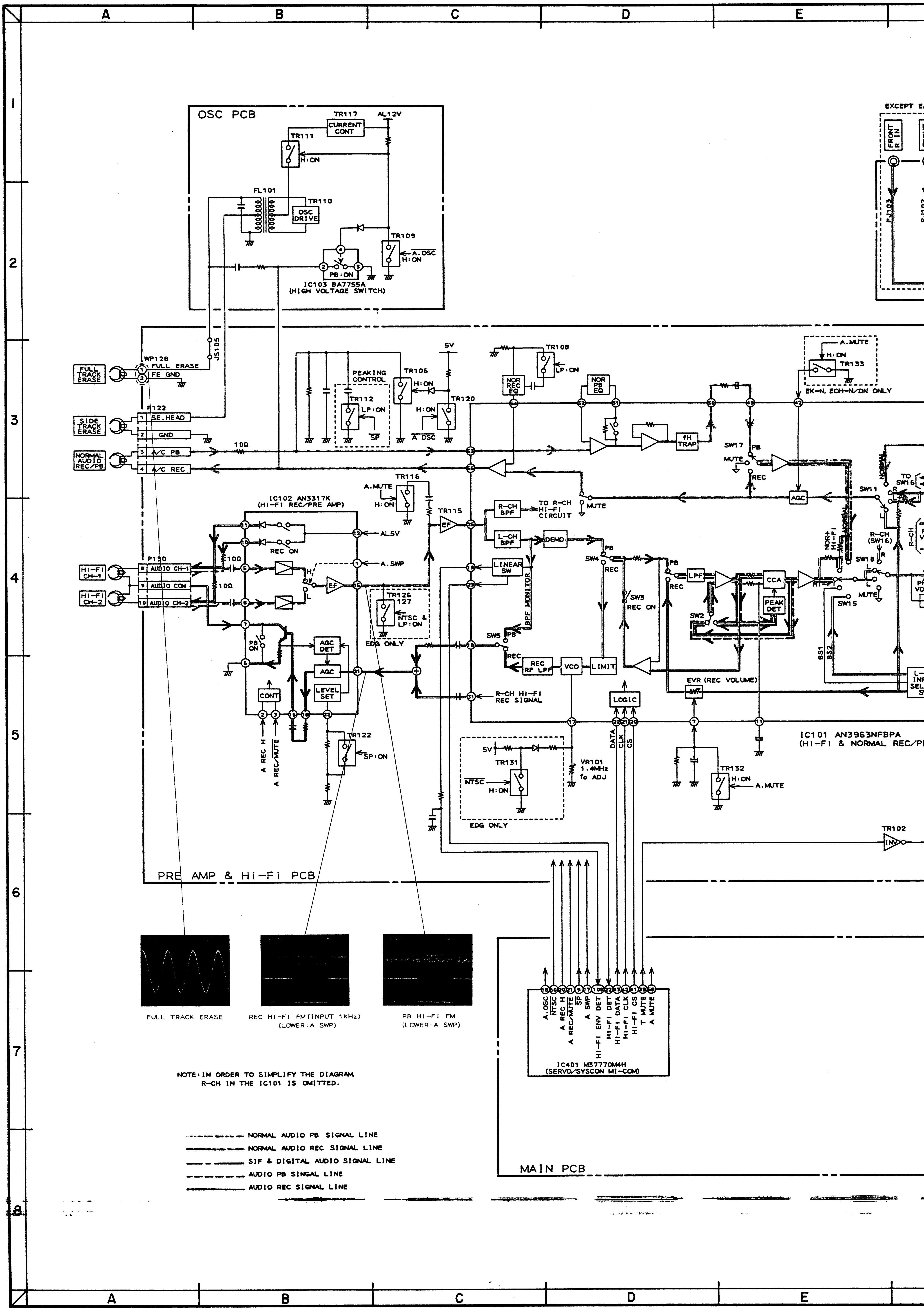

A
B
C
D
E
1
2
3
4
5
6
7
8
REC FM Y OUT
V REC VOL (REC)
UPPER:TR649 BASE
LOWER:TR650 BASE (REC)
REC MOD IN
(LOWER:V OUT)
REC
MAIN EMPHASIS OUT
REC
NLE OUT
PB
MAIN DE-EMPHASIS
PB
NON-LINEAR DE-EMPHA.OUT
PB FM Y IN
(LOWER:V OUT)
REC FM Y OUT
PB FM Y IN
(LOWER:V OUT)
PB LOW CHROMA IN
PB LOW CHROMA IN
CHROMA ROTARY PULSE
CDR OUT
NON-CORELATION SIGNAL OUT
(LOWER:V OUT)
COMB IN
CT DET (PB)
(LOWER:V OUT)
CROSSTALK OUT
(LOWER:V OUT)
BURST AMP OUT
(LOWER:V OUT)
C SYNC OUT
REC LOW CHROMA
BGP OUT
CH-1/CH-2 SEPARATED REC CURRENT COMPENSATOR
TR649
L:OFF
TR653
H:ON
TR654
H:ON (V.SWP)
TR650
L:OFF
TR648
THERMAL
COMPEN-
SATOR
P603
V REC VOL
V REC VOL
V REC VOLUME 2 (D/A)
V REC VOLUME 1 (D/A)
AL5V
VR602
CARR
VR601
DEV
TR617
H:ON
TR618
LNC
H:ON
TR639
H:ON
NTSC
SP
TR634
PB
H:ON
EDG ONLY
L.C.KILLER ON
3MHz
LPF
TR619
IC602
LC8992
CCD
DELAY LINE
TR620
TR647
CLAMP 2 IN
CCD IN
TR626
REC FM
TR625
TR623
PEAKING
AMP
910KHz
CHROMA TRAP
HPF
TR624
TR636
TUNE
H:ON
SP
LP:ON
VR608
REC.Y
VR603
WHITE
CLIP
ADJ.
MOD IN
ME OUT
W/C
REC FM OUT
MOD
W/D
CLIP
SECAM
V LPF OUT
CLAMP 1 IN
DOC
NOR
PB
EE
PAL
NT
NLDE
LNC
NC
PICT
NLE
LIM
HPF
REC ON
TO PRE AMP & HI-FI PCB P3
PB Y
TR627
PHASE
CORRECT
TR628
AMP
PEAKING CONTROL
620KHz
CHROMA TRAP
3MHz
TRAP
TR633
PB FM IN
LIM
DEM
TR637
NTSC
L:ON
EDG ONLY
TR630
TR631
TUNE
H:ON
TUNE
M&H:ON
AL5V
VR604
PB LEVEL
ADJ.
DEM GAIN
TR601
EQ
SELECT
SP
MDE PEAK
IC601 AN3558
(Y/C SIGNAL PROCESSOR)
PB ENVE
TR611
PB C IN
BPF
4PHI
EE
PB
ACC
BM
C.N.
BPF
ATT
CNR
1.5M TRAP
JS601
LPF
CACC
C.ROT
C-ROT
C.SYNC
TEST
REC ON
BGP OUT
COMB DRIVE
THRU
COMB
H:COMB OFF
PB CHROMA OUT
TR603
VR605
REC-C
ADJ.
1.6M AFM TRAP
C.SYNC
SDC FF
TR655
V REC VOL
TR629
H:ON
SP
TR635
H:ON
TUNE
5V
H:ON
TR604
TR657
SP
EDG ONLY
TR612
AL5V
L:ON
NTSC
EXCEPT
EDG-D
DL601
2H
DELAY
COMB
TR5
VR3
MIX
LEVEL
TR3
DL 1
2H DELAY
COMB
FILTER
TR1
CROSSTALK
CANCELLED
CHROMA SIGNAL
ONLY
NON CORELATION &
CROSSTALK SIGNAL
ONLY
NON-CORELATION
SIGNAL
AMP
TR6
TR16
TR12
EF
BGP
TR17
TR11
TR10
PHASE
CORRECT
IC1 M51494L
CROSSTALK
CANCELLER
TR13
AMP
DURING
BURST
PERIOD
TR14
H:ON
VR4
PHASE CONT
CT.DET
(IC401)
CROSSTALK
LEVEL
DETECT
IC2 NJM4558L
TR15
CDR (CHROMA DELAY REDUCTION) PCB
EDG-D ONLY
TR311
IC311 BA7025L
PB
BGP
SECAM
DETECT
BGP
SDP
TO IC401
115 PIN
SECAM.DET & NTSC
EDG ONLY
PB Y SIGNAL LINE
REC Y SIGNAL LINE
PB CHROMA SIGNAL LINE
REC CHROMA SIGNAL LINE

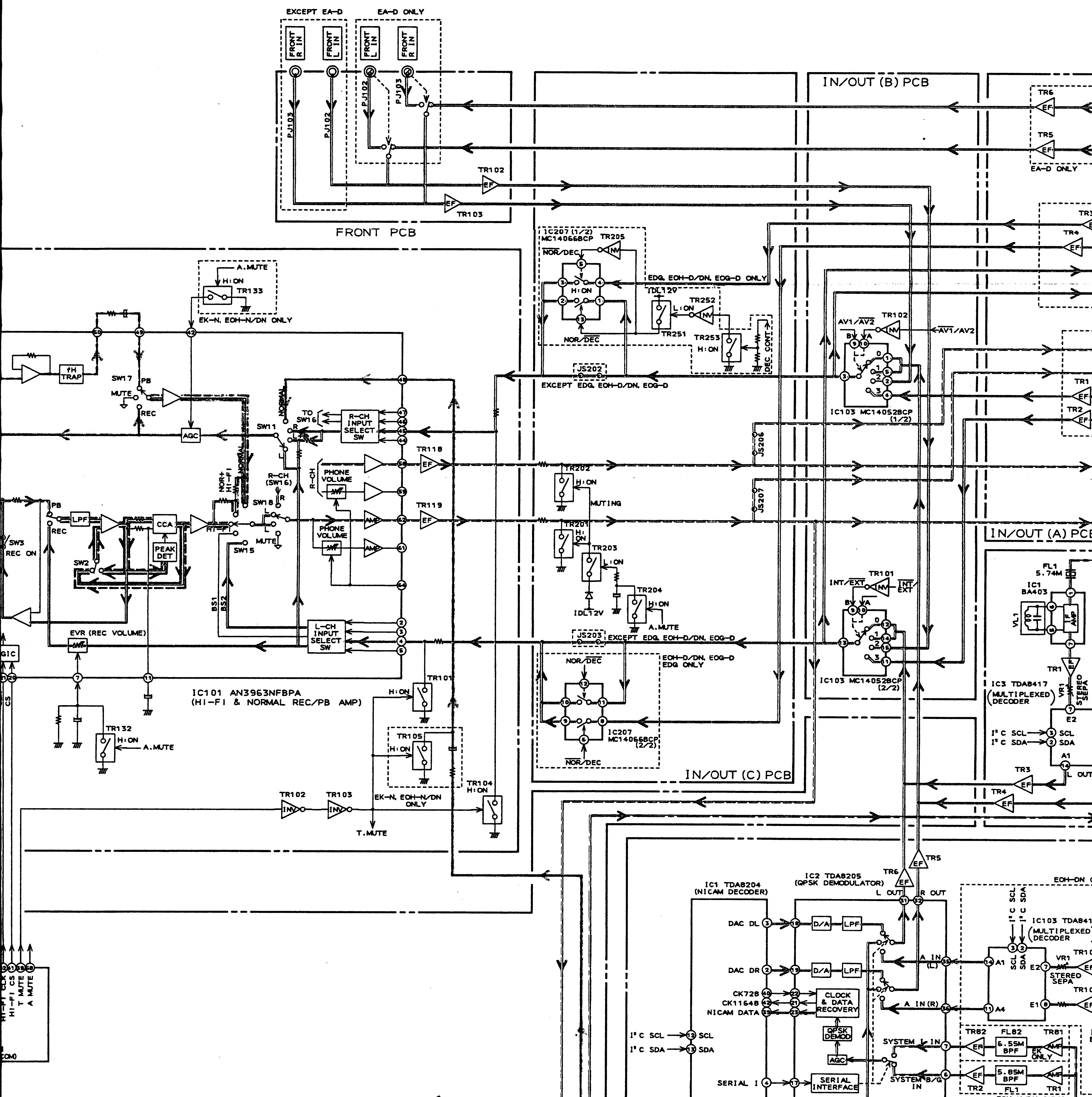

D
E
F
G
H
I
REC NLE OUT
PB MAIN DE-EMPHASIS
PB NON-LINEAR DE-EMPHA. OUT
PB CCD OUT
CCD CLK IN
PB CCD IN
QUASI V-PULSE (PAUSE MODE)
IMS IN
IMS OUT
VIDEO IN
IC401 M37770M4H
(SERVO/SYSCON MI-COM)
V REC VOLUME 2 (D/A)
V REC VOLUME 1 (D/A)
V REC VOL 2
V REC VOL 1
V.SYNC
NTSC
ANC VOL
PICT CONT
LNC
VP
SP
EE/PB/TRICK
SDP
SEC.MES
PB
EE
NP
CT DET
IC602 LC8992
CCD 1H DELAY LINE
2FSC
3MHz LPF
TR617
TR618
TR619
TR620
TR634
TR639
TR647
TR652
VR601 DEV
AL5V
H:ON
NTSC EDG ONLY
L.C.KILLER ON
MOD IN
DE OUT
Y LPF OUT
CLAMP 2 IN
CCD IN
NC CTL
REC:L PB:H PBID:M
H:OFF, M:MODE1 L:MODE2
EP:H, LP:M, SP:L
E-E:H, PB:M, TRICK:L
IC603 LC74760 (IMS)
X602 17.75MHz
FROM OPERATION MI-COM
TO IC401
AFC-H
S.CLK
S.IN
CS
V.SYNC
H.SYNC
SYNC IN
CV IN
CV OUT
CV OR
CHROMA BY-PASS
4.4MHz
TR643
TR640, 642
TR644
JS629
JS205
TR103
MOD
W/D CLIP
DEM
NLDE
LNC
NC
PICT
Y/C MIX
MUTE
V OUT
NOR
DOC
NLE
LIM
HPF
REC ON
PAL, NT
SECAM
MAIN
PEAK
IC601 AN3558
(Y/C SIGNAL PROCESSOR)
ATT
AGC
VIDEO IN
APC DET
TR621
TRICK:ON
X601 4.43MHz
2FSC
2FSC (TO IC602)
TR608
NTSC:L PAL:M SECAM:H
4PHI
ACC
BM
C.N. BPF
LPF
CACC
CNR
DET
C.SYNC
TEST
BGP OUT
COMB DRIVE
THRU
COMB H:COMB OFF
PB CHROMA OUT
PB CHROMA IN
EE ADJ
SEC.MES
VR607 EE LEVEL
15K
10K
12K
EXCEPT EDG
R707
5.7M TRAP
EDG ONLY
TR612
L:ON
EXCEPT EOG-D
DL601 2H DELAY COMB
SDC EE
EXCEPT EDG, EOH-D/DN, EOG-D
JS204
JS201
EK-L
JS4
EXCEPT
TR3
PHASE CORRECT
TR4
ANT
RF CONVERTER
VIDEO IN
RF IN
TUNER
VIF
TR6
IC208 MM1111XS
DEC:H
EDG, EOH-D/DN, EOG-D ONLY
TUNER VIDEO
AV1/AV2
NT/EXT
IC104 MM1113XS
IC102 6dB AMP
MM1031XS
EDG, EOH-D/DN, EOG-D ONLY
IN/OUT (B) PCB
IN/OUT (C) PCB
12V
TR251
TR252
TR253
DEC:H
TR311
IC311 BA7025L
SECAM DETECT
SDP
TO IC401 115 PIN
BGP
TR352
TR353
TR354
TR355
TR351
+45° PHASE SHIFTER
-45° PHASE SHIFTER
IC351 (2/3)
IC351 (3/3)
IC351 (1/3) MC14053BCP
NT → PAL:1/2FH
NTSC 4.43:L
IC352 BU4013B
AFC-H
CLK
PR
CL
NP
NP H:ON
NTSC 4.43:H NT → PAL:L
SECAM.DET & NTSC PCB
EDG ONLY
TR101
EXCEPT EA-D
EA-D ONLY
PJ101
FRONT V IN
C SYNC OUT
REC LOW CHROMA
BGP OUT
CNR OUT
PHASE SHIFTED SIGNAL
PB CHROMA SIGNAL (NT→PAL MODE)
BGP (NT→PAL)
NT→PAL MODE
NTSC 4.43 MODE


F
G
H
I
J
1
2
3
4
5
6
7
8
PB
D OUT
CCD CLK IN
PB
CCD IN
QUASI V-PULSE
(PAUSE MODE)
IMS IN
IMS OUT
VIDEO IN
VIDEO OUT
IC401 M37770M4H
(SERVO/SYSCON MI-COM)
VOL 2
VOL 1
V.SYNC
V·SYNC
PICT CONT
LNC
VP
SP
EE/PB/TRICK
SDP
SEC.MES
PB
EE
NP
CT DET
SDP
SEC.MES
EE
NP
CT DET
PB
TR652
AL5V
12K
10K
LPF
PICT CONT
H:OFF, M:MODE1
L:MODE2
AVP
EP:H, LP:M, SP:L
E-E:H, PB:M, TRICK:L
REC:L
PB:H
PBID:M
IC603
LC74760
(IMS)
FROM OPERATION
MI-COM
TO IC401
AFC-H
X602
17.75MHz
S.CLK
S.IN
CS
V.SYNC
H.SYNC
TR643
EF
SYNC IN
TR640, 642
CV IN
CV OR
CV OUT
TR644
JS629
4.4MHz
CHROMA
BY-PASS
V OUT
MUTE
AGC
VIDEO IN
APC DET
AL5V
TR621
TRICK:ON
X601
4.43MHz
DET
EK
ONLY
JS1
EXCEPT
EK
TR3
PHASE
CORRECT
TR4
EF
ANT
RF
CONVERTER
VIDEO IN
RF IN
TUNER
VIF
TR6
EF
2FSC
EF
2FSC
(TO IC602)
TR608
NTSC:L
PAL:M
SECAM:H
EE ADJ
AL5V
VR607
EE
LEVEL
AL5V
15K
10K
SEC·MES
NTSC
5.7M
TRAP
TR103
EF
JS205
EXCEPT EDG, EOH-D/DN,
EOG-D
JS201
JS204
AV1/AV2
IC208 MM1111XS
NT/EXT
IC104 MM1113XS
DEC:H
EDG, EOH-D/DN,
EOG-D ONLY
TUNER VIDEO
IC102
6dB
AMP
MM1031XS
EDG, EOH-D/DN,
EOG-D ONLY
DECODER
CONT
IN/OUT (B) PCB
EXCEPT EA-D
PJ1
V OUT
V IN
VIDEO/AUDIO
PJ2
V OUT
V IN
DECODER
EDG, EOH-D/DN,
EOG-D ONLY
EA-D ONLY
PJ6
V OUT
REAR
V IN
PJ3
IN/OUT (A)
PCB
EDG, EOH-D/DN,
EOG-D ONLY
12V
TR251
L:ON
TR252
TR253
H:ON
DEC:H
IN/OUT (C) PCB
EXCEPT
EA-D
TR101
EF
EA-D
ONLY
PJ101
FRONT
PCB
FRONT
V IN
CHROMA MIX IN
EF
TR354
TR352
+45° PHASE
SHIFTER
EF
IC351 (2/3)
H
L
IC351 (3/3)
H
L
TR353
-45° PHASE
SHIFTER
EF
IC351 (1/3)
BU4053BCP
NT → PAL:1/2FH
NTSC 4.43:L
NTSC 4.43:L
TR355
TR351
BGP
IC352
BU4013B
AFC·H
CLK
PR
Q
D
CL
NP
H:ON
NTSC 4.43:H
NT → PAL:L
NP
R OUT
PHASE SHIFTED SIGNAL
PB CHROMA SIGNAL
(NT → PAL MODE)
BGP (NT → PAL)
NT → PAL MODE
NTSC 4.43 MODE

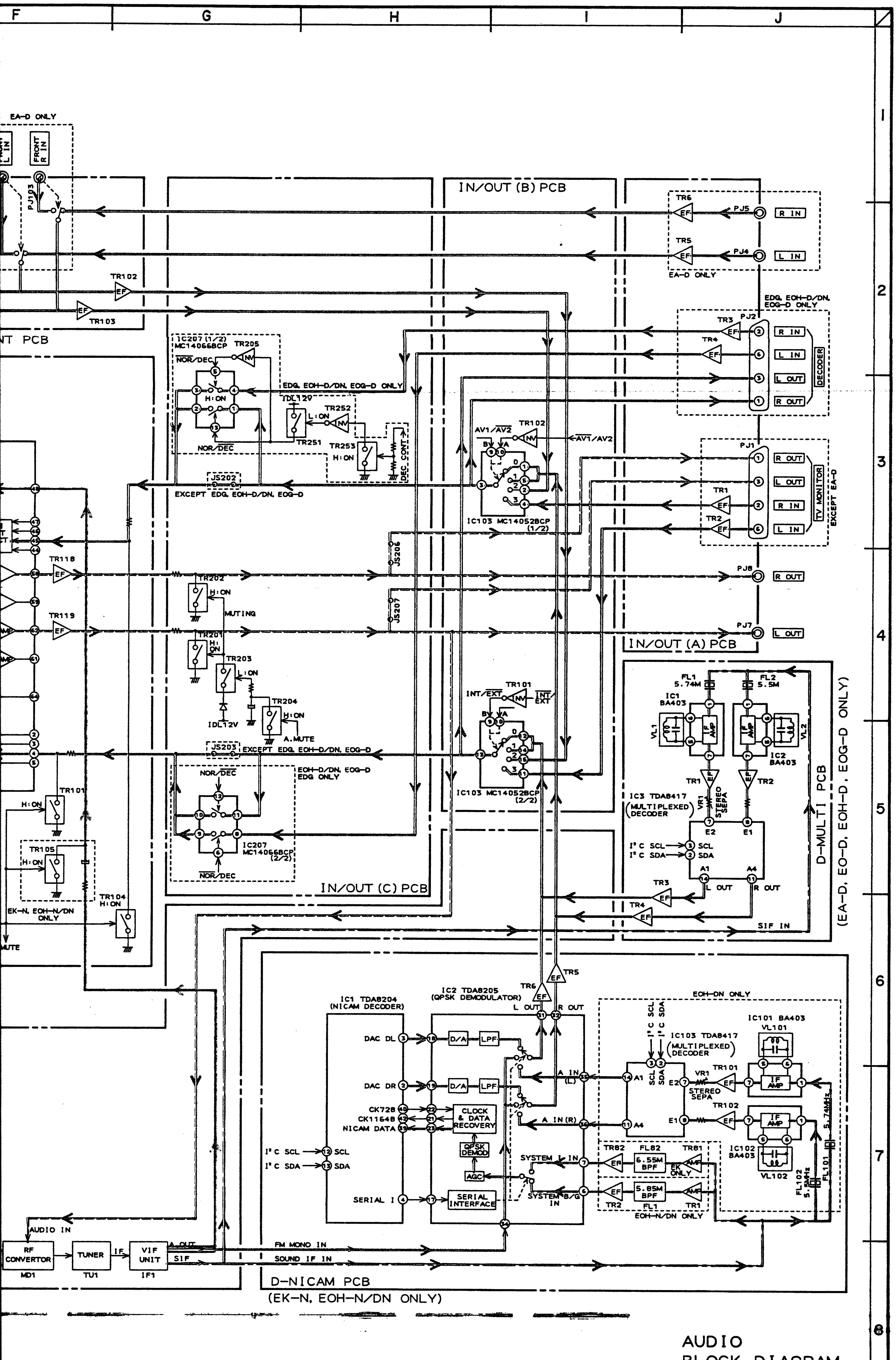
VIDEO
BLOCK DIAGRAM
No.5-1 V121451M
A1


A
B
C
D
E
1
2
3
4
5
6
7
8
OSC PCB
TR117
CURRENT CONT
AL12V
TR111
H:ON
FL101
TR110
OSC DRIVE
TR109
A.OSC
H:ON
PB:ON
IC103 BA7755A
(HIGH VOLTAGE SWITCH)
JS105
WP128
FULL TRACK ERASE
FULL ERASE
FE GND
P122
SIDE TRACK ERASE
SE.HEAD
GND
NORMAL AUDIO REC/PB
A/C PB
A/C REC
10Ω
PEAKING CONTROL
TR112
LP:ON
SP
TR106
H:ON
5V
TR120
H:ON
A OSC
TR108
LP:ON
NOR REC EQ
NOR PB EQ
fH TRAP
SW17
PB
MUTE
REC
A.MUTE
H:ON
TR133
EK-N, EOH-N/DN ONLY
AGC
SW11
NORMAL
NOR+ HI-FI
TO SW16
R-CH (SW16)
SW18
SW15
MUTE
HI-FI
TR116
A.MUTE
H:ON
TR115
EF
R-CH BPF
TO R-CH HI-FI CIRCUIT
L-CH BPF
DEMO
MUTE
IC102 AN3317K
(HI-FI REC/PRE AMP)
AL5V
REC ON
A.SWP
H
L
EF
P130
HI-FI CH-1
HI-FI CH-2
AUDIO CH-1
AUDIO COM
AUDIO CH-2
TR126
127
NTSC & LP:ON
EDG ONLY
PB ON
AGC DET
AGC
LEVEL SET
CONT
A REC H
A REC/MUTE
TR122
SP:ON
LINEAR SW
BPF MONITOR
SW4
PB
REC
SW3
REC ON
LPF
CCA
PEAK DET
SW2
SW5
REC RF LPF
VCO
LIMIT
LOGIC
DATA
CLK
CS
EVR (REC VOLUME)
R-CH HI-FI REC SIGNAL
5V
TR131
NTSC
H:ON
EDG ONLY
VR101
1.4MHz
fo ADJ
TR132
H:ON
A.MUTE
IC101 AN3963NFBPA
(HI-FI & NORMAL REC/P
BS1
BS2
TR102
INV
PRE AMP & Hi-Fi PCB
EXCEPT E
FRONT R IN
PJ103
FULL TRACK ERASE
REC HI-FI FM (INPUT 1KHz)
(LOWER: A SWP)
PB HI-FI FM
(LOWER: A SWP)
A.OSC
NTSC
A REC H
A REC/MUTE
SP
A SWP
HI-FI ENV DET
HI-FI DET
HI-FI DATA
HI-FI CLK
HI-FI CS
T MUTE
A MUTE
IC401 M37770M4H
(SERVO/SYSCON MI-COM)
MAIN PCB
NORMAL AUDIO PB SIGNAL LINE
NORMAL AUDIO REC SIGNAL LINE
SIF & DIGITAL AUDIO SIGNAL LINE
AUDIO PB SINGAL LINE
AUDIO REC SIGNAL LINE

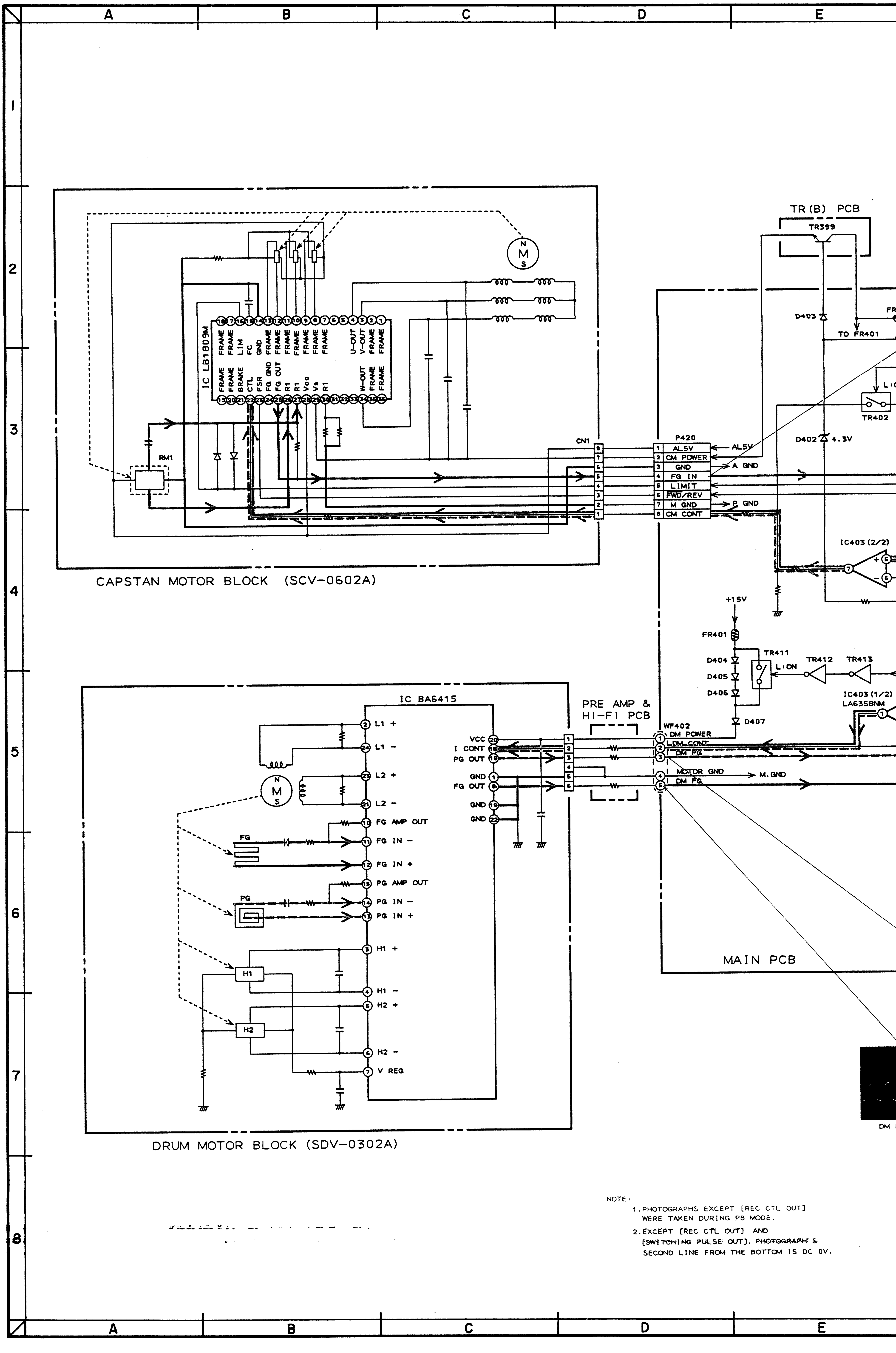
NOTE: IN ORDER TO SIMPLIFY THE DIAGRAM, R-CH IN THE IC101 IS OMITTED.


EXCEPT EA-D
EA-D ONLY
FRONT R IN
FRONT L IN
FRONT L IN
FRONT R IN
PJ103
PJ102
PJ102
PJ103
TR102
EF
TR103
FRONT PCB
IN/OUT (B) PCB
TR6
TR5
EA-D ONLY
TR4
IC207 (1/2) MC14066BCP
TR205
NOR/DEC
H:ON
NOR/DEC
EDG, EOH-D/DN, EOG-D ONLY
IDL12V
L:ON
TR252
TR251
TR253
H:ON
DEC CONT
JS202
EXCEPT EDG, EOH-D/DN, EOG-D
AV1/AV2
TR102
IC103 MC14052BCP (1/2)
TR1
TR2
A.MUTE
H:ON
TR133
EK-N, EOH-N/DN ONLY
fH TRAP
SW17
PB
MUTE
REC
AGC
SW11
NORMAL
HI-FI
NORMAL
TO SW16
R
L
R-CH INPUT SELECT SW
TR118
EF
R-CH
PHONE VOLUME
NOR+ HI-FI
R-CH (SW16)
SW18
L
R
HI-FI
MUTE
SW15
JS206
JS207
TR202
H:ON
MUTING
TR119
PHONE VOLUME
AMP
TR201
H:ON
TR203
L:ON
TR204
H:ON
A.MUTE
IDL12V
IN/OUT (A) PCB
PB
REC
LPF
CCA
PEAK DET
SW3
REC ON
SW2
BS1
BS2
L-CH INPUT SELECT SW
EVR (REC VOLUME)
GIC
CS
IC101 AN3963NFBPA
(HI-FI & NORMAL REC/PB AMP)
TR132
H:ON
A.MUTE
TR101
H:ON
TR105
H:ON
JS203
EXCEPT EDG, EOH-D/DN, EOG-D
EOH-D/DN, EOG-D
EDG ONLY
NOR/DEC
IC207 MC14066BCP (2/2)
NOR/DEC
IN/OUT (C) PCB
TR101
INT/EXT
INT/EXT
IC103 MC14052BCP (2/2)
FL1 5.74M
IC1 BA403
VL1
IF AMP
TR1
IC3 TDA8417 (MULTIPLEXED DECODER)
VR1
STEREO SEPA
E2
I²C SCL
I²C SDA
SCL
SDA
A1
L OUT
TR3
TR4
EF
TR102
TR103
INV
EK-N, EOH-N/DN ONLY
TR104 H:ON
T.MUTE
TR5
TR6
EF
IC1 TDA8204 (NICAM DECODER)
IC2 TDA8205 (QPSK DEMODULATOR)
L OUT
R OUT
DAC DL
DAC DR
D/A
LPF
CK728
CK11648
NICAM DATA
CLOCK & DATA RECOVERY
QPSK DEMOD
AGC
I²C SCL
I²C SDA
SCL
SDA
SERIAL I
SERIAL INTERFACE
A IN (L)
A IN (R)
SYSTEM I IN
SYSTEM B/G IN
EOH-DN
I²C SCL
I²C SDA
IC103 TDA8417 (MULTIPLEXED DECODER)
A1
A4
E1
E2
VR1
STEREO SEPA
TR82
FL82 6.55M BPF
TR81
EK ONLY
5.85M BPF
FL1
TR2
TR1
EOH-N/DN ONLY
HI-FI CLK
HI-FI CS
T MUTE
A MUTE
COM
ANT IN
RF OUT
AUDIO IN
RF CONVERTOR
MD1
TUNER
TU1
IF
VIF UNIT
IF1
A OUT
SIF
FM MONO IN
SOUND IF IN
D-NICAM PCB
(EK-N, EOH-N/DN ONLY)

AUDI
BLOC
No.5-2


F
G
H
I
J
1
2
3
4
5
6
7
8
EA-D ONLY
FRONT R IN
PJ103
IN/OUT (B) PCB
TR6
EF
PJ5
R IN
TR5
PJ4
L IN
EA-D ONLY
TR102
TR103
NT PCB
EDG, EOH-D/DN, EOG-D ONLY
TR3
PJ2
R IN
TR4
L IN
L OUT
R OUT
DECODER
IC207 (1/2) MC14066BCP
TR205
NOR/DEC
H:ON
INV
EDG, EOH-D/DN, EOG-D ONLY
IDL12V
TR252
L:ON
TR251
TR253
H:ON
DEC. CONT
NOR/DEC
JS202
EXCEPT EDG, EOH-D/DN, EOG-D
AV1/AV2
TR102
AV1/AV2
IC103 MC14052BCP (1/2)
PJ1
R OUT
L OUT
TR1
R IN
TR2
L IN
TV MONITOR
EXCEPT EA-D
TR118
TR202
H:ON
JS206
PJ8
R OUT
MUTING
TR119
JS207
PJ7
L OUT
TR201
H:ON
IN/OUT (A) PCB
TR203
L:ON
TR204
H:ON
IDL12V
A.MUTE
INT/EXT
TR101
INT/EXT
JS203
EXCEPT EDG, EOH-D/DN, EOG-D
EOH-D/DN, EOG-D EDG ONLY
NOR/DEC
IC103 MC14052BCP (2/2)
IC207 MC14066BCP (2/2)
NOR/DEC
FL1 5.74M
FL2 5.5M
IC1 BA403
VL1
IF AMP
IC2 BA403
VL2
TR1
TR2
IC3 TDA8417 (MULTIPLEXED DECODER)
VR1
STEREO SEPA
E2
E1
I²C SCL
I²C SDA
SCL
SDA
A1
A4
L OUT
R OUT
TR3
TR4
SIF IN
D-MULTI PCB
(EA-D, EO-D, EOH-D, EOG-D ONLY)
TR101
H:ON
TR105
H:ON
TR104
H:ON
EK-N, EOH-N/DN ONLY
MUTE
IN/OUT (C) PCB
TR6
TR5
IC1 TDA8204 (NICAM DECODER)
IC2 TDA8205 (QPSK DEMODULATOR)
L OUT
R OUT
EOH-DN ONLY
I²C SCL
I²C SDA
IC101 BA403
VL101
IC103 TDA8417 (MULTIPLEXED DECODER)
DAC DL
D/A
LPF
DAC DR
A IN (L)
A IN (R)
TR101
STEREO SEPA
TR102
CK728
CK1164B
NICAM DATA
CLOCK & DATA RECOVERY
QPSK DEMOD
AGC
I²C SCL
I²C SDA
SCL
SDA
SYSTEM I IN
SYSTEM B/G IN
SERIAL I
SERIAL INTERFACE
TR82
FL82
6.55M BPF
TR81
EK ONLY
AMP
5.85M BPF
FL1
TR2
TR1
EOH-N/DN ONLY
IC102 BA403
VL102
FL101 5.74MHz
FL102 5.5MHz
AUDIO IN
RF CONVERTOR
MD1
TUNER
TU1
IF
VIF UNIT
IF1
A OUT
SIF
FM MONO IN
SOUND IF IN
D-NICAM PCB
(EK-N, EOH-N/DN ONLY)

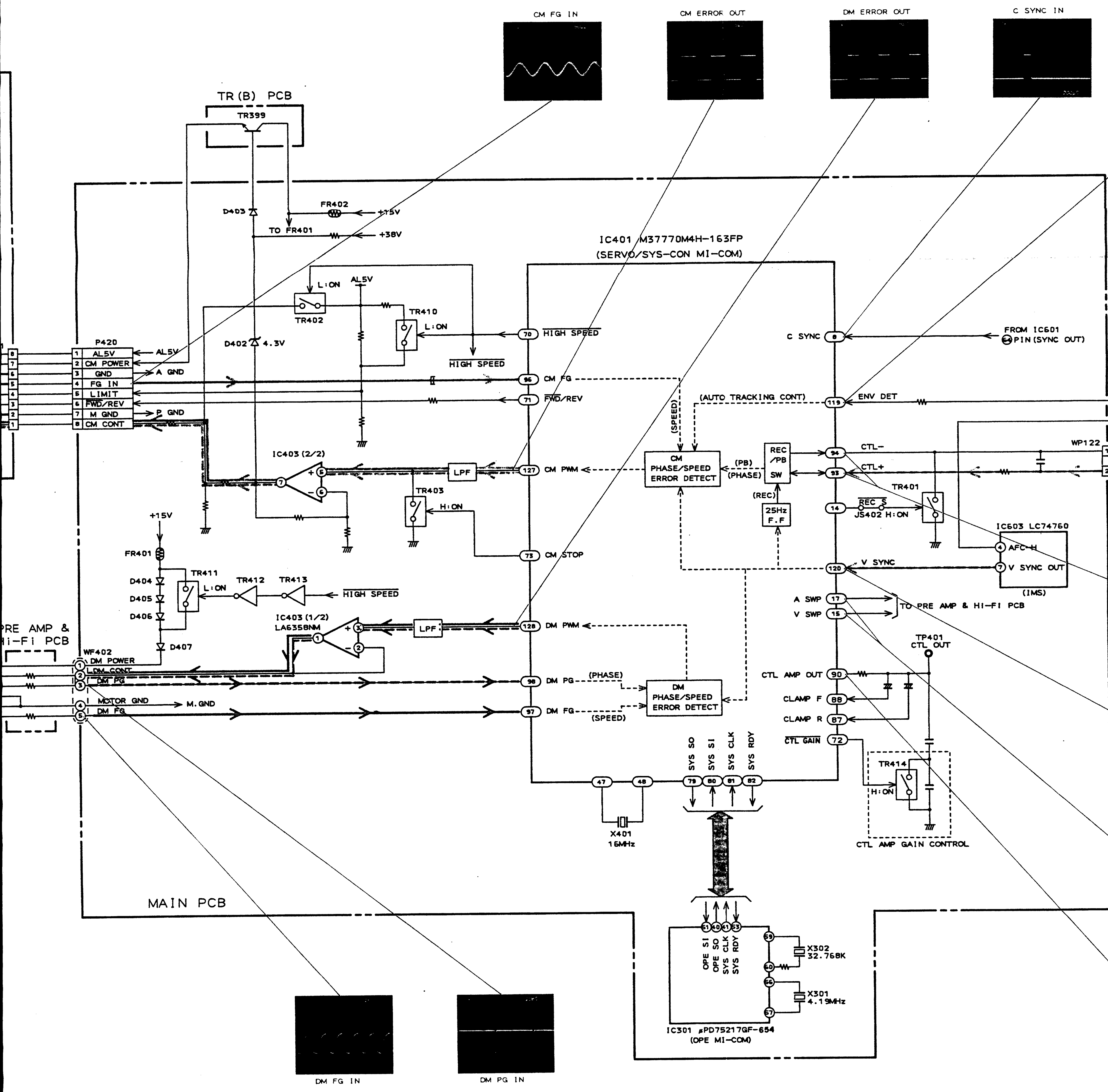
AUDIO
BLOCK DIAGRAM
No.5-2 V121452M
A1


A
B
C
D
E
1
2
3
4
5
6
7
8
N
M
S
IC LB1809M
FRAME
FRAME
LIM
FC
GND
FRAME
FRAME
FRAME
FRAME
FRAME
FRAME
FRAME
U-OUT
V-OUT
FRAME
FRAME
FRAME
FRAME
BRAKE
CTL
FSR
FG GND
FG OUT
R1
R1
Vcc
Vs
R1
W-OUT
FRAME
FRAME
RM1
CN1
CAPSTAN MOTOR BLOCK (SCV-0602A)
TR (B) PCB
TR399
D403
TO FR401
TR402
D402 4.3V
P420
1 AL5V
2 CM POWER
3 GND
4 FG IN
5 LIMIT
6 FWD/REV
7 M GND
8 CM CONT
AL5V
A GND
P GND
IC403 (2/2)
+15V
FR401
D404
D405
D406
D407
TR411
L:ON
TR412
TR413
IC403 (1/2)
LA6358NM
IC BA6415
L1 +
L1 −
L2 +
L2 −
FG AMP OUT
FG IN −
FG IN +
PG AMP OUT
PG IN −
PG IN +
H1 +
H1 −
H2 +
H2 −
V REG
VCC
I CONT
PG OUT
GND
FG OUT
GND
GND
FG
PG
H1
H2
PRE AMP &
Hi-Fi PCB
WF402
DM POWER
DM CONT
DM PG
MOTOR GND
DM FG
M.GND
MAIN PCB
DM
DRUM MOTOR BLOCK (SDV-0302A)

NOTE:

1. PHOTOGRAPHS EXCEPT [REC CTL OUT]
WERE TAKEN DURING PB MODE.

2. EXCEPT [REC CTL OUT] AND
[SWITCHING PULSE OUT]. PHOTOGRAPH' S
SECOND LINE FROM THE BOTTOM IS DC 0V.

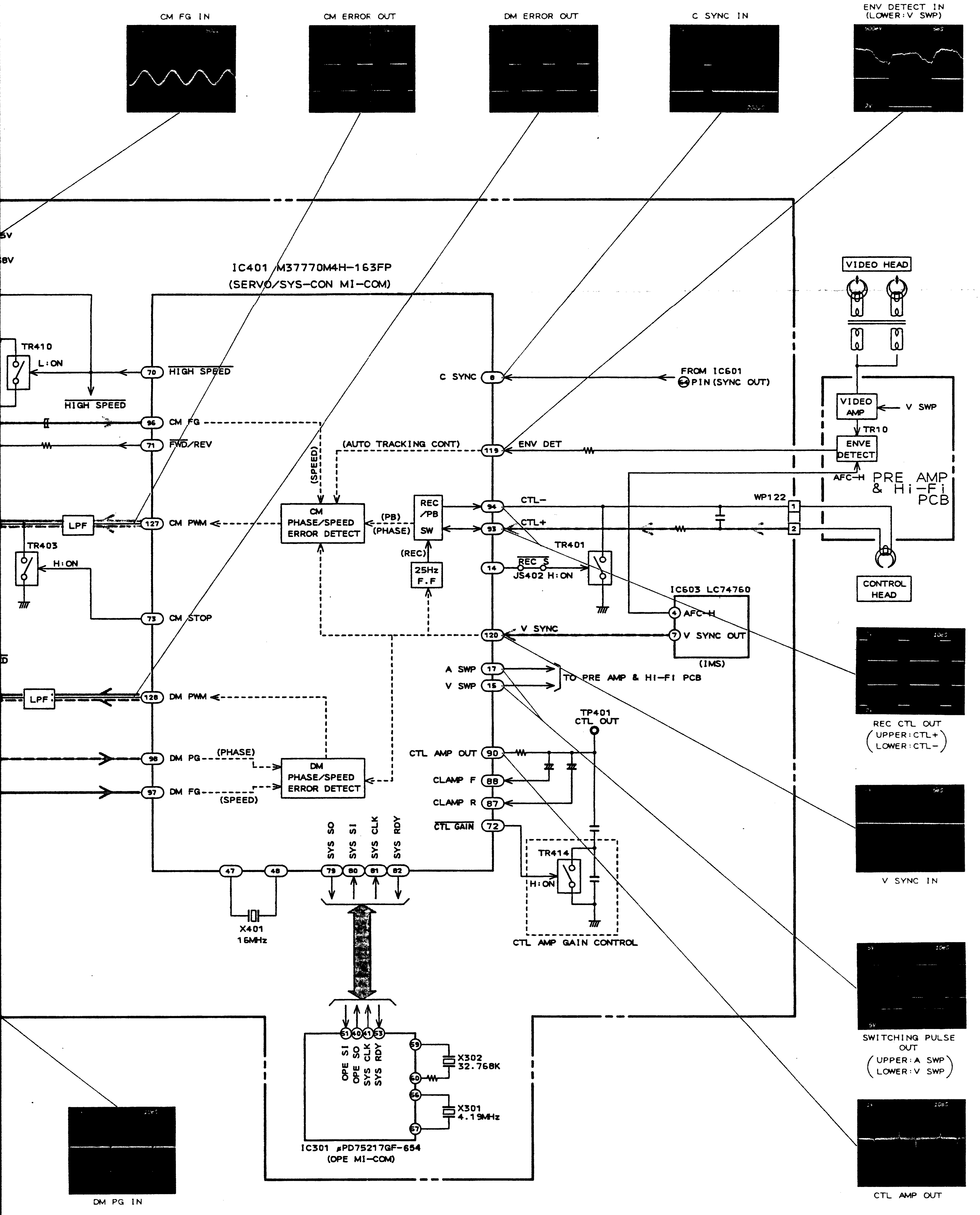

CM FG IN
CM ERROR OUT
DM ERROR OUT
C SYNC IN
TR (B) PCB
TR399
D403
FR402
+15V
TO FR401
+38V
IC401 M37770M4H-163FP
(SERVO/SYS-CON MI-COM)
L:ON
AL5V
TR402
TR410
L:ON
D402 4.3V
P420
1 AL5V
2 CM POWER
3 GND
4 FG IN
5 LIMIT
6 FWD/REV
7 M GND
8 CM CONT
AL5V
A GND
P GND
70 HIGH SPEED
HIGH SPEED
96 CM FG
71 FWD/REV
IC403 (2/2)
LPF
127 CM PWM
TR403
H:ON
73 CM STOP
+15V
FR401
D404
D405
D406
D407
TR411
L:ON
TR412
TR413
HIGH SPEED
IC403 (1/2)
LA6358NM
LPF
128 DM PWM
PRE AMP &
Hi-Fi PCB
WF402
1 DM POWER
2 DM CONT
3 DM PG
4 MOTOR GND
5 DM FG
M.GND
98 DM PG
(PHASE)
97 DM FG
(SPEED)
DM
PHASE/SPEED
ERROR DETECT
CM
PHASE/SPEED
ERROR DETECT
(SPEED)
(AUTO TRACKING CONT)
(PB)
(PHASE)
REC
/PB
SW
(REC)
25Hz
F.F
C SYNC 8
FROM IC601
64 PIN (SYNC OUT)
119 ENV DET
94 CTL-
93 CTL+
WP122
TR401
14 REC S
JS402 H:ON
IC603 LC74760
4 AFC-H
7 V SYNC OUT
(IMS)
120 V SYNC
A SWP 17
V SWP 15
TO PRE AMP & HI-FI PCB
TP401
CTL OUT
CTL AMP OUT 90
CLAMP F 88
CLAMP R 87
CTL GAIN 72
TR414
H:ON
CTL AMP GAIN CONTROL
47
48
X401
16MHz
SYS SO
SYS SI
SYS CLK
SYS RDY
79
80
81
82
MAIN PCB
51 40 41 53
OPE SI
OPE SO
SYS CLK
SYS RDY
59
60
56
57
X302
32.768K
X301
4.19MHz
IC301 μPD75217GF-654
(OPE MI-COM)
DM FG IN
DM PG IN

NOTE:

1. PHOTOGRAPHS EXCEPT [REC CTL OUT] WERE TAKEN DURING PB MODE.
2. EXCEPT [REC CTL OUT] AND [SWITCHING PULSE OUT], PHOTOGRAPH'S SECOND LINE FROM THE BOTTOM IS DC 0V.

———— :CAPSTAN MOTOR SPEED CONTROL LINE
– – – – :CAPSTAN MOTOR PHASE CONTROL LINE
━━━━ :DRUM MOTOR SPEED CONTROL LINE
━ ━ ━ ━ :DRUM MOTOR PHASE CONTROL LINE

SERV
BLOC
N


CM FG IN
CM ERROR OUT
DM ERROR OUT
C SYNC IN
ENV DETECT IN (LOWER:V SWP)
IC401 M37770M4H-163FP
(SERVO/SYS-CON MI-COM)
TR410
L:ON
70 HIGH SPEED
HIGH SPEED
96 CM FG
71 FWD/REV
127 CM PWM
LPF
TR403
H:ON
73 CM STOP
128 DM PWM
98 DM PG
97 DM FG
(PHASE)
(SPEED)
(SPEED)
CM PHASE/SPEED ERROR DETECT
DM PHASE/SPEED ERROR DETECT
(AUTO TRACKING CONT)
(PB)
(PHASE)
REC /PB SW
(REC)
25Hz F.F
C SYNC 8
FROM IC601 64 PIN (SYNC OUT)
119 ENV DET
94 CTL−
93 CTL+
14 REC S
JS402 H:ON
TR401
WP122
120 V SYNC
IC603 LC74760
4 AFC-H
7 V SYNC OUT
(IMS)
A SWP 17
V SWP 15
TO PRE AMP & HI-FI PCB
TP401 CTL OUT
CTL AMP OUT 90
CLAMP F 88
CLAMP R 87
CTL GAIN 72
TR414
H:ON
CTL AMP GAIN CONTROL
47
48
X401 16MHz
SYS SO
SYS SI
SYS CLK
SYS RDY
79
80
81
82
51
50
41
53
OPE SI
OPE SO
SYS CLK
SYS RDY
59
60
56
57
X302 32.768K
X301 4.19MHz
IC301 μPD75217GF-654
(OPE MI-COM)
VIDEO HEAD
VIDEO AMP
V SWP
TR10
ENVE DETECT
AFC-H
PRE AMP & Hi-Fi PCB
1
2
CONTROL HEAD
REC CTL OUT (UPPER:CTL+ LOWER:CTL−)
V SYNC IN
SWITCHING PULSE OUT (UPPER:A SWP LOWER:V SWP)
CTL AMP OUT
DM PG IN
5V
8V

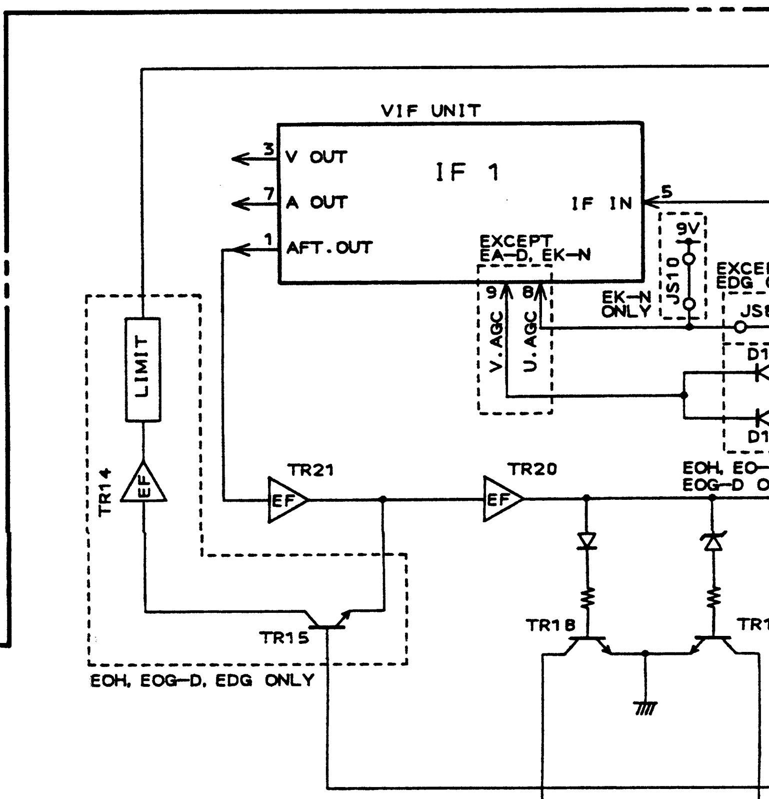
:CAPSTAN MOTOR SPEED CONTROL LINE
:CAPSTAN MOTOR PHASE CONTROL LINE
:DRUM MOTOR SPEED CONTROL LINE
:DRUM MOTOR PHASE CONTROL LINE

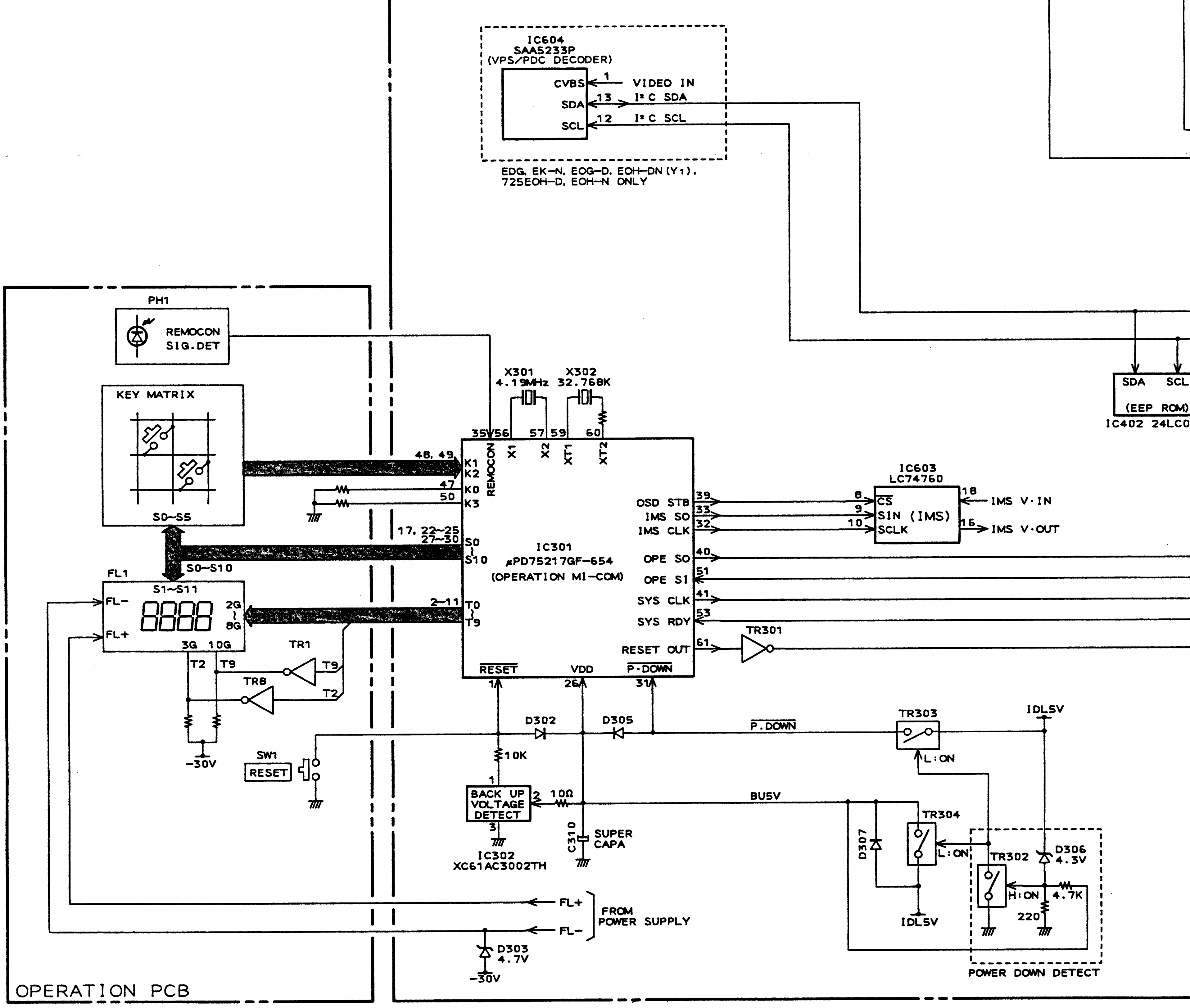
SERVO
BLOCK DIAGRAM

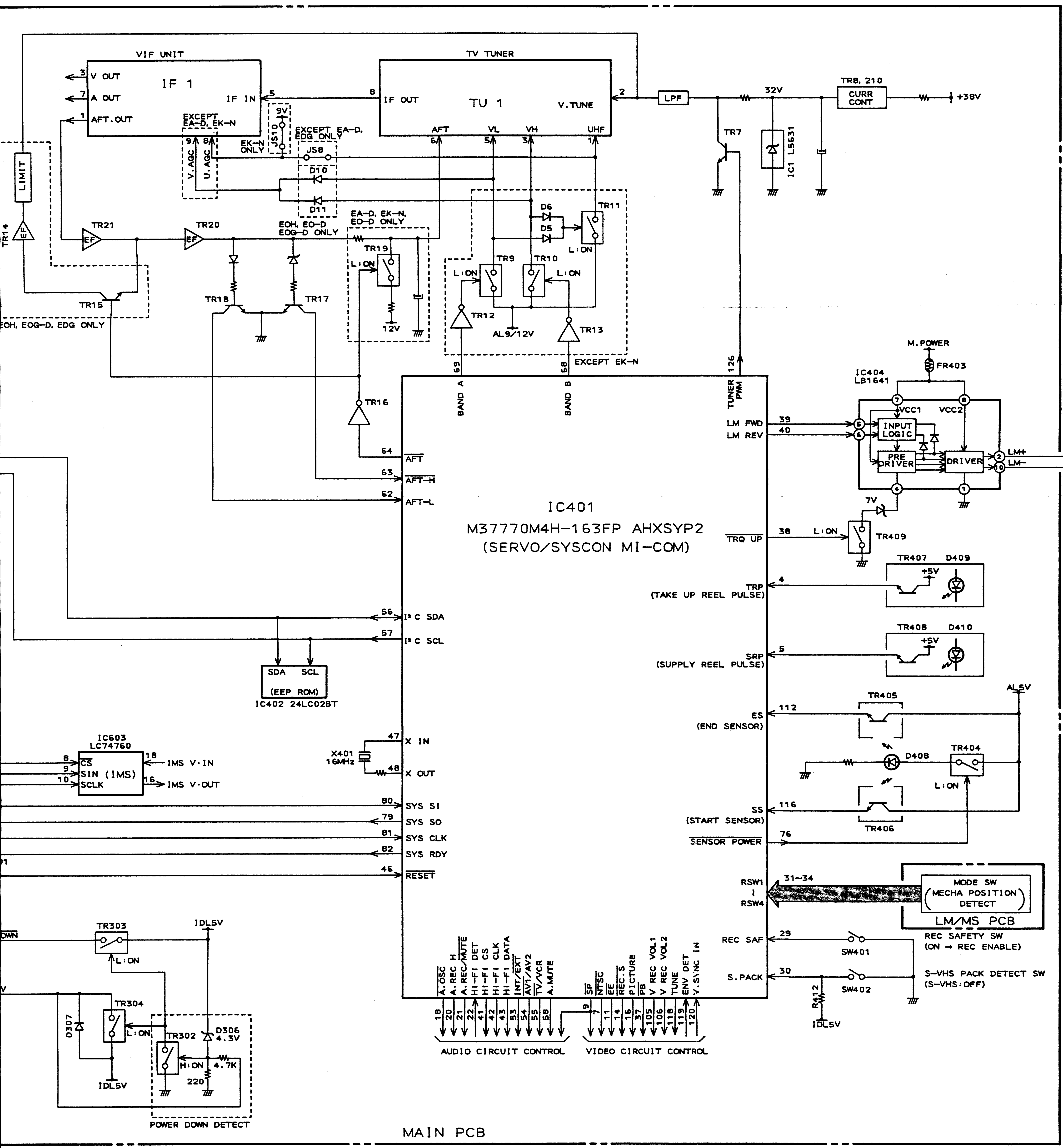
No.5-3 V119053M
A1

MODE SWITCH TRUTH TABLE

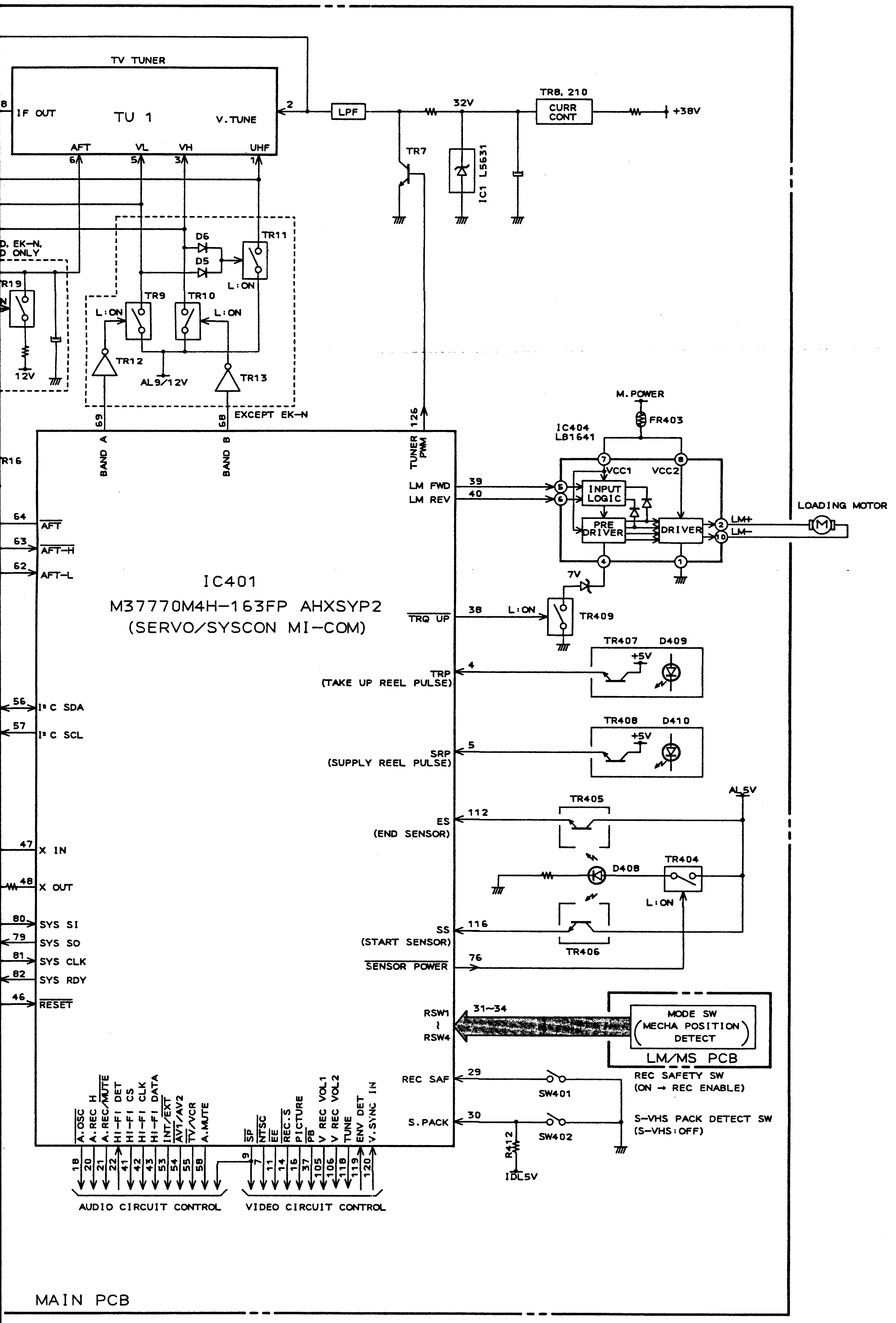
OUTPUT \ MODE	EJECT	STOP (TAPE LOADED)	PAUSE/PLAY	PLAY	REVIEW	CUE	FF	REW	POWER OFF (WITH CASSETTE)
RSW 4	H (5V)	H	H	H	H	H	L	L	H
RSW 3	H (5V)	L	H	L	H	L	L	L	L
RSW 2	L	H	H	H	L	H	H	H	L
RSW 1	L	H	L	H	H	H	H	L	H


VIF UNIT
IF 1
V OUT
A OUT
AFT. OUT
IF IN
EXCEPT EA-D, EK-N
EK-N ONLY
JS10
9V
V. AGC
U. AGC
LIMIT
TR14
EF
TR21
TR20
TR15
TR18
EOH, EOG-D, EDG ONLY

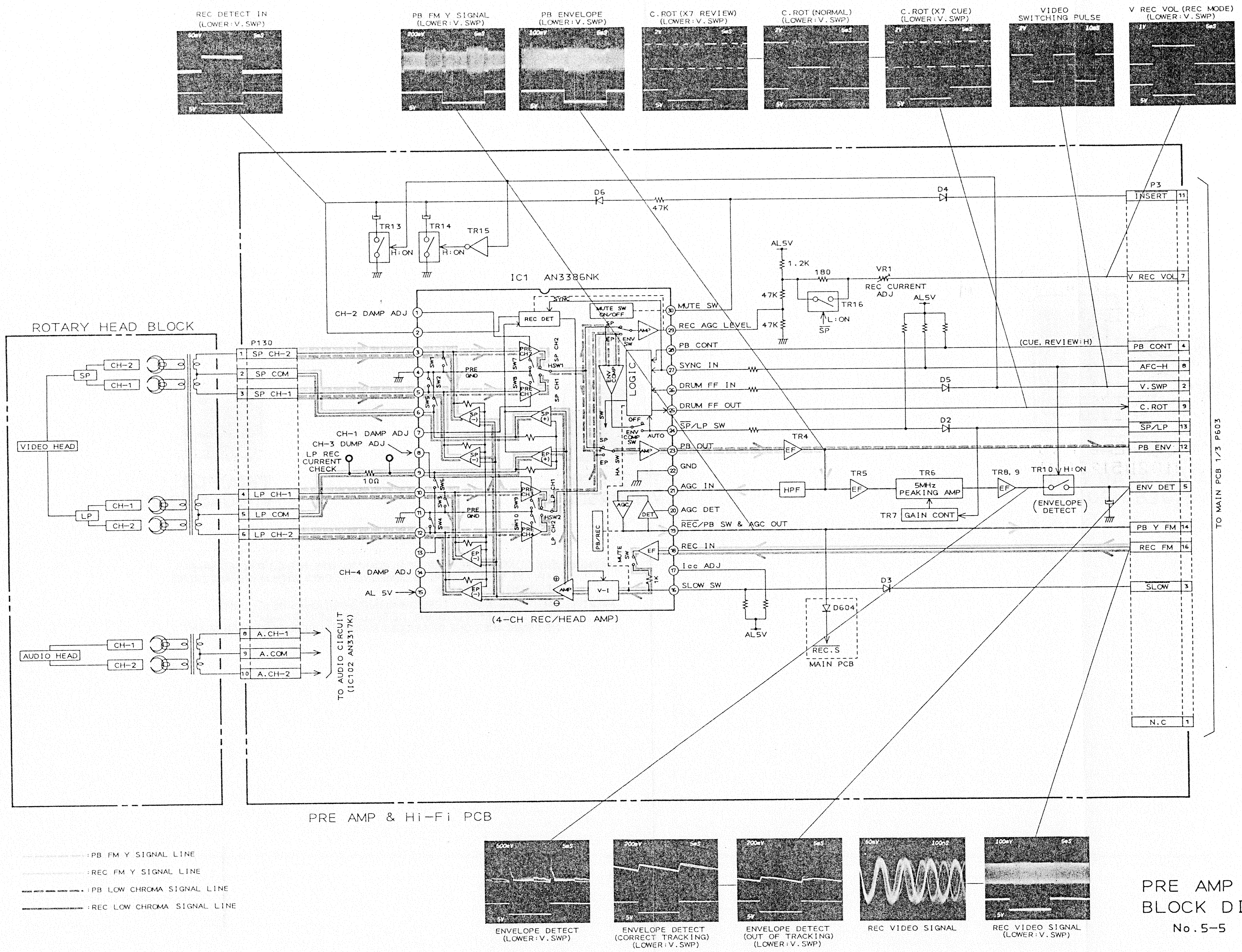

IC604
SAA5233P
(VPS/PDC DECODER)
CVBS
SDA
SCL
VIDEO IN
I² C SDA
I² C SCL
EDG, EK-N, EOG-D, EOH-DN (Y1), 725EOH-D, EOH-N ONLY
PH1
REMOCON SIG. DET
KEY MATRIX
S0~S5
X301 4.19MHz
X302 32.768K
IC301
μPD75217GF-654
(OPERATION MI-COM)
REMOCON
X1
X2
XT1
XT2
K1
K2
K0
K3
S0
S10
T0
T9
OSD STB
IMS SO
IMS CLK
OPE SO
OPE SI
SYS CLK
SYS RDY
RESET OUT
RESET
VDD
P-DOWN
IC603
LC74760
CS
SIN (IMS)
SCLK
IMS V-IN
IMS V-OUT
SDA
SCL
(EEP ROM)
IC402 24LC0
FL1
S1~S11
FL-
FL+
3G 10G
2G ~ 8G
S0~S10
TR1
TR8
T2
T9
-30V
SW1
RESET
D302
D305
10K
BACK UP VOLTAGE DETECT
IC302
XC61AC3002TH
10Ω
C310
SUPER CAPA
P. DOWN
BU5V
TR301
TR303
L: ON
IDL5V
TR304
D307
TR302
H: ON
D306 4.3V
4.7K
220
POWER DOWN DETECT
FL+
FL-
FROM POWER SUPPLY
D303 4.7V
-30V
OPERATION PCB


VIF UNIT
IF 1
V OUT
A OUT
AFT.OUT
IF IN
EXCEPT EA-D, EK-N
V.AGC
U.AGC
EK-N ONLY
9V
JS10
EXCEPT EA-D, EDG ONLY
JS8
D10
D11
TV TUNER
TU 1
IF OUT
V.TUNE
AFT
VL
VH
UHF
LPF
32V
TR7
IC1 L5631
TR8, 210
CURR CONT
+38V
LIMIT
TR14
EF
TR21
TR20
EOH, EO-D
EOG-D ONLY
EA-D, EK-N, EO-D ONLY
TR19
L:ON
12V
TR15
EOH, EOG-D, EDG ONLY
TR18
TR17
TR16
D6
D5
TR11
TR9
TR10
L:ON
TR12
TR13
AL9/12V
EXCEPT EK-N
BAND A
BAND B
TUNER PWM
IC401
M37770M4H-163FP AHXSYP2
(SERVO/SYSCON MI-COM)
AFT
AFT-H
AFT-L
I²C SDA
I²C SCL
SDA
SCL
(EEP ROM)
IC402 24LC02BT
IC603
LC74760
CS
SIN (IMS)
SCLK
IMS V·IN
IMS V·OUT
X401
16MHz
X IN
X OUT
SYS SI
SYS SO
SYS CLK
SYS RDY
RESET
LM FWD
LM REV
M.POWER
FR403
IC404
LB1641
VCC1
VCC2
INPUT LOGIC
PRE DRIVER
DRIVER
LM+
LM-
7V
TRQ UP
TR409
TR407
D409
+5V
TRP
(TAKE UP REEL PULSE)
TR408
D410
SRP
(SUPPLY REEL PULSE)
AL5V
TR405
ES
(END SENSOR)
D408
TR404
SS
(START SENSOR)
TR406
SENSOR POWER
RSW1 ~ RSW4
31~34
MODE SW
(MECHA POSITION DETECT)
LM/MS PCB
REC SAF
SW401
REC SAFETY SW
(ON → REC ENABLE)
S.PACK
SW402
S-VHS PACK DETECT SW
(S-VHS:OFF)
R412
IDL5V
A.OSC
A.REC H
A.REC/MUTE
HI-FI DET
HI-FI CS
HI-FI CLK
HI-FI DATA
INT/EXT
AV1/AV2
TV/VCR
A.MUTE
SP
NTSC
EE
REC.S
PICTURE
PB
V REC VOL1
V REC VOL2
TUNE
ENV DET
V.SYNC IN
AUDIO CIRCUIT CONTROL
VIDEO CIRCUIT CONTROL
TR303
TR304
D307
TR302
H:ON
D306
4.3V
4.7K
220
POWER DOWN DETECT
MAIN PCB

OPERATION & SYSCON
BLOCK DIAGRAM
No.5-4 V121453M
A1


TV TUNER
TU 1
IF OUT
V.TUNE
AFT
VL
VH
UHF
LPF
32V
TR8, 210
CURR CONT
+38V
TR7
IC1 L5631
D6
D5
TR11
L:ON
TR9
TR10
TR12
TR13
AL9/12V
12V
EXCEPT EK-N
BAND A
BAND B
TUNER PWM
IC401
M37770M4H-163FP AHXSYP2
(SERVO/SYSCON MI-COM)
AFT
AFT-H
AFT-L
I² C SDA
I² C SCL
X IN
X OUT
SYS SI
SYS SO
SYS CLK
SYS RDY
RESET
LM FWD
LM REV
TRQ UP
M.POWER
FR403
IC404
LB1641
VCC1
VCC2
INPUT LOGIC
PRE DRIVER
DRIVER
LM+
LM-
LOADING MOTOR
7V
TR409
TR407
D409
+5V
TRP
(TAKE UP REEL PULSE)
TR408
D410
SRP
(SUPPLY REEL PULSE)
AL5V
TR405
ES
(END SENSOR)
D408
TR404
TR406
SS
(START SENSOR)
SENSOR POWER
RSW1
RSW4
31~34
MODE SW
(MECHA POSITION DETECT)
LM/MS PCB
REC SAF
SW401
REC SAFETY SW
(ON → REC ENABLE)
S.PACK
SW402
R412
IDL5V
S-VHS PACK DETECT SW
(S-VHS:OFF)
A.OSC
A.REC H
A.REC/MUTE
HI-FI DET
HI-FI CS
HI-FI CLK
HI-FI DATA
INT/EXT
AV1/AV2
TV/VCR
A.MUTE
SP
NTSC
EE
REC.S
PICTURE
PB
V REC VOL1
V REC VOL2
TUNE
ENV DET
V.SYNC IN
AUDIO CIRCUIT CONTROL
VIDEO CIRCUIT CONTROL
MAIN PCB

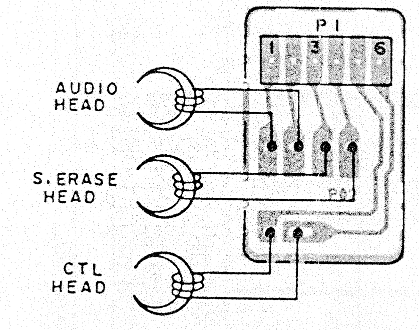
OPERATION & SYSCON
BLOCK DIAGRAM
No.5-4 V121453M
A1


REC DETECT IN (LOWER:V.SWP)
PB FM Y SIGNAL (LOWER:V.SWP)
PB ENVELOPE (LOWER:V.SWP)
C.ROT (X7 REVIEW) (LOWER:V.SWP)
C.ROT (NORMAL) (LOWER:V.SWP)
C.ROT (X7 CUE) (LOWER:V.SWP)
VIDEO SWITCHING PULSE
V REC VOL (REC MODE) (LOWER:V.SWP)
ROTARY HEAD BLOCK
VIDEO HEAD
SP
LP
CH-1
CH-2
AUDIO HEAD
P130
1 SP CH-2
2 SP COM
3 SP CH-1
4 LP CH-1
5 LP COM
6 LP CH-2
8 A.CH-1
9 A.COM
10 A.CH-2
TO AUDIO CIRCUIT (IC102 AN3317K)
IC1 AN3386NK
(4-CH REC/HEAD AMP)
CH-2 DAMP ADJ
CH-1 DAMP ADJ
CH-3 DUMP ADJ
LP REC CURRENT CHECK
10Ω
CH-4 DAMP ADJ
AL 5V
TR13
TR14
TR15
H:ON
D6
47K
D4
REC DET
MUTE SW ON/OFF
SYNC
LOGIC
AGC
DET
EF
AMP
V-I
PB/REC
MUTE SW
MUTE SW
REC AGC LEVEL
PB CONT
SYNC IN
DRUM FF IN
DRUM FF OUT
SP/LP SW
PB OUT
GND
AGC IN
AGC DET
REC/PB SW & AGC OUT
REC IN
Icc ADJ
SLOW SW
AL5V
1.2K
180
47K
47K
TR16
L:ON
SP
VR1
REC CURRENT ADJ
AL5V
(CUE. REVIEW:H)
D5
D2
TR4
EF
TR5
HPF
TR6
5MHz PEAKING AMP
TR7
GAIN CONT
TR8, 9
TR10
H:ON
(ENVELOPE DETECT)
D3
D604
REC.S
MAIN PCB
AL5V
P3
INSERT 11
V REC VOL 7
PB CONT 4
AFC-H 8
V.SWP 2
C.ROT 9
SP/LP 13
PB ENV 12
ENV DET 5
PB Y FM 14
REC FM 16
SLOW 3
N.C 1
TO MAIN PCB 1/3 P603
PRE AMP & Hi-Fi PCB
:PB FM Y SIGNAL LINE
:REC FM Y SIGNAL LINE
:PB LOW CHROMA SIGNAL LINE
:REC LOW CHROMA SIGNAL LINE
ENVELOPE DETECT (LOWER:V.SWP)
ENVELOPE DETECT (CORRECT TRACKING) (LOWER:V.SWP)
ENVELOPE DETECT (OUT OF TRACKING) (LOWER:V.SWP)
REC VIDEO SIGNAL
REC VIDEO SIGNAL (LOWER:V.SWP)

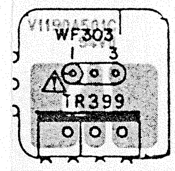
PRE AMP BLOCK DIAGRAM

No.5-5 V119055M A1

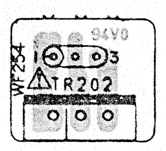
]


P1
1
3
6
AUDIO HEAD
S.ERASE HEAD
P0
CTL HEAD

A / C HEAD PCB
V1102B5120(J1)


WF303
1
3
TR399

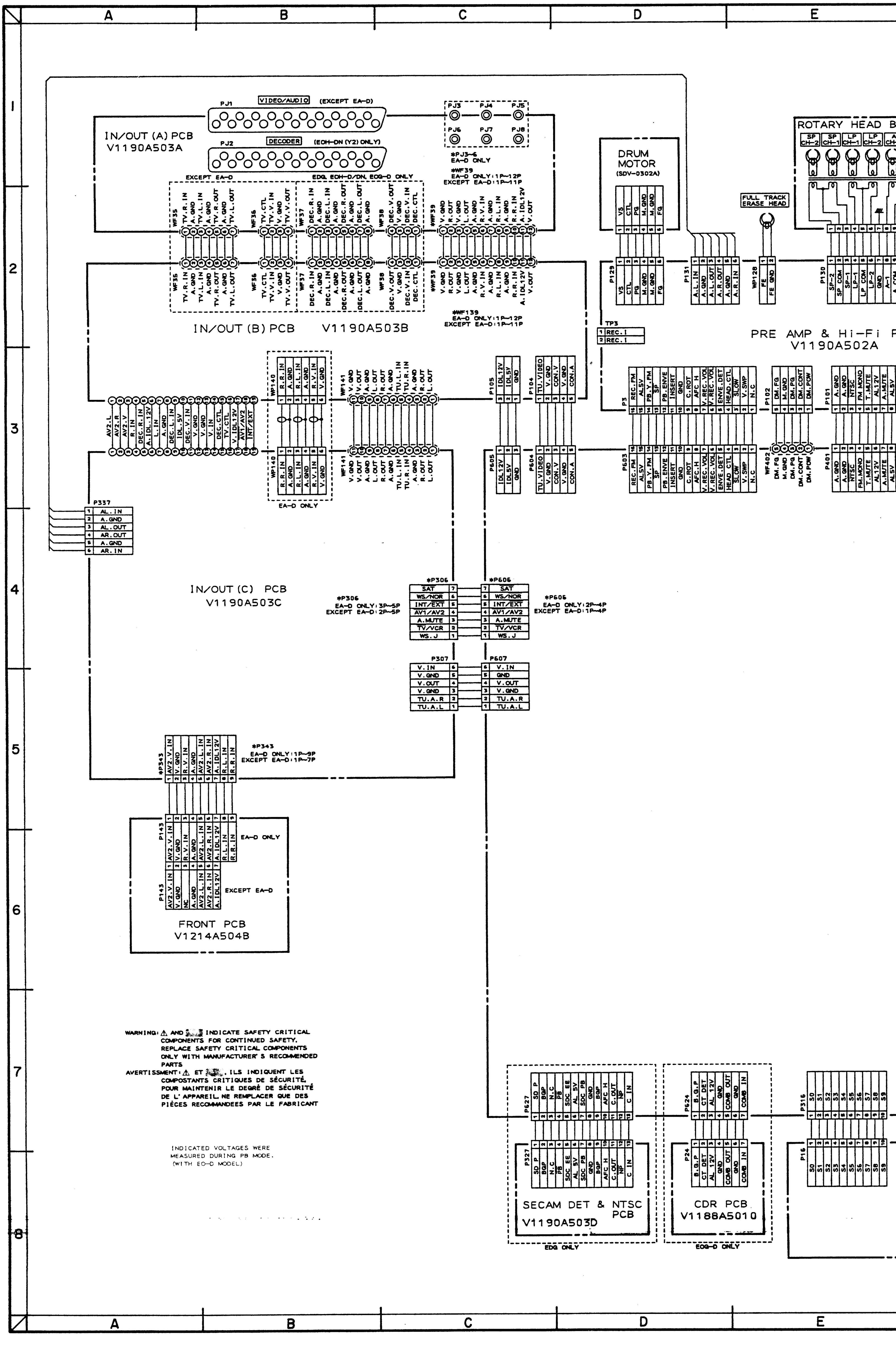
TR(B) PCB
V1190A501C(J1)


94V0
WF234
1
3
TR202

TR(A) PCB
V1190A501B(J1)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

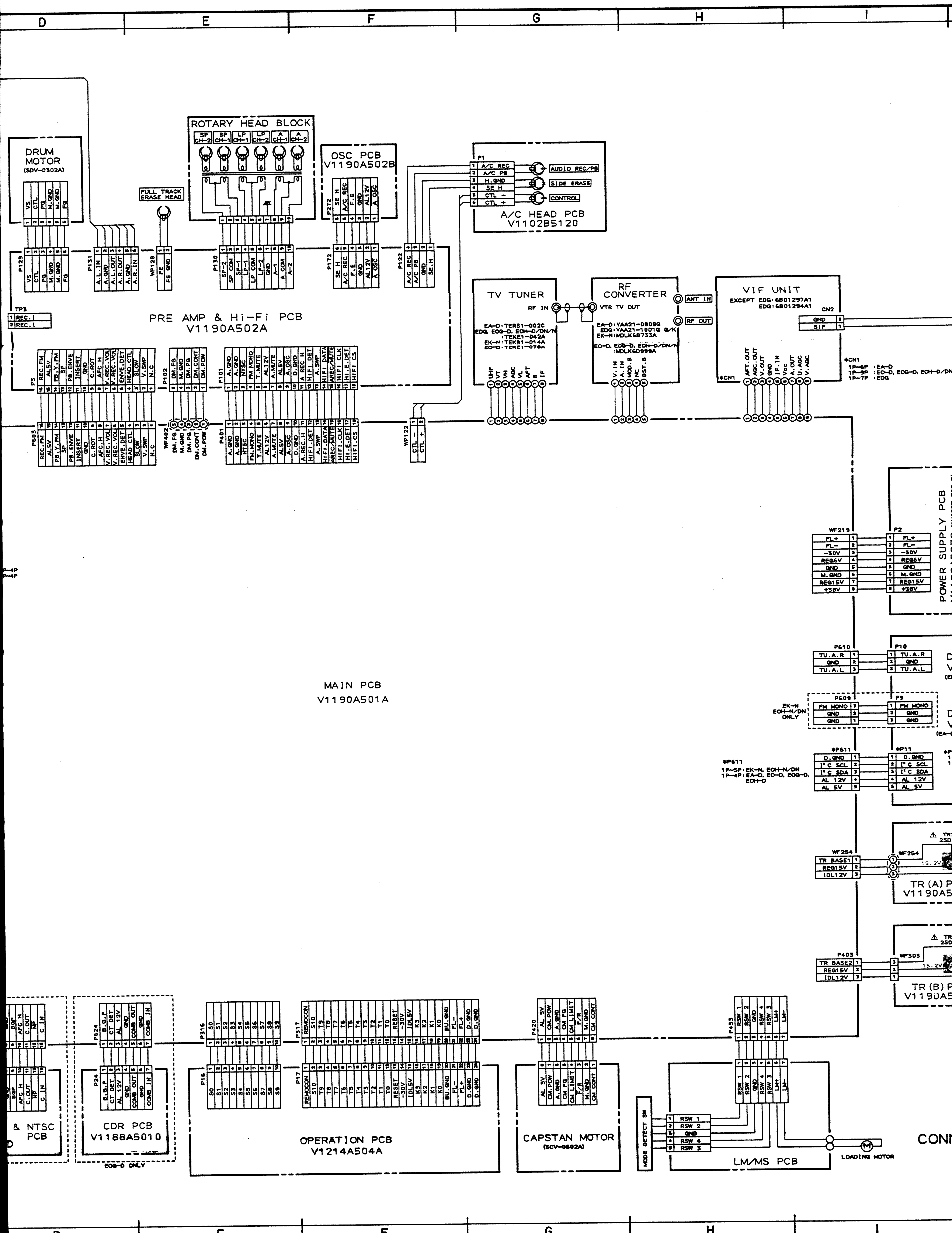
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

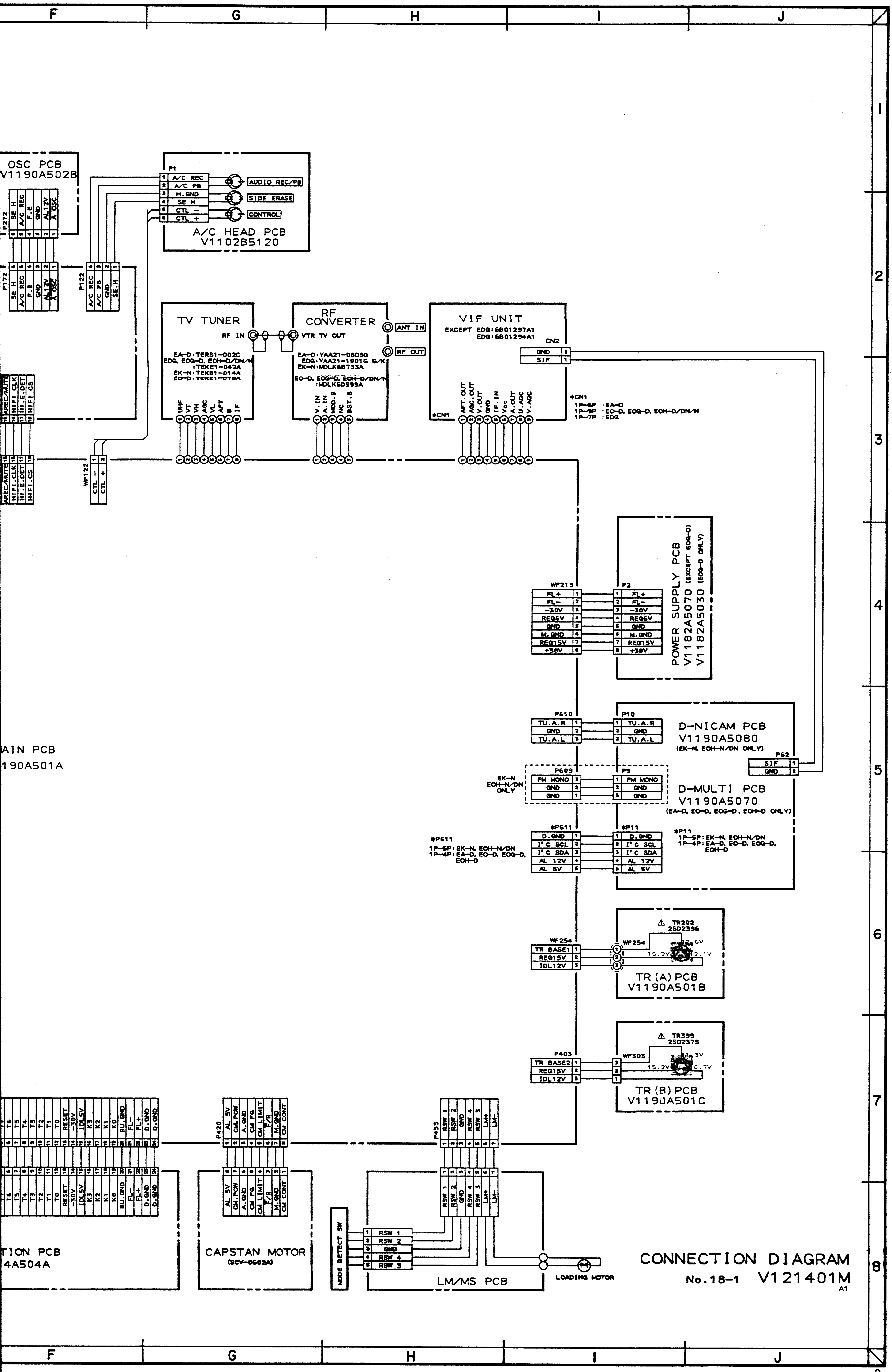

A
B
C
D
E
1
2
3
4
5
6
7
8
IN/OUT (A) PCB
V1190A503A
PJ1
VIDEO/AUDIO
(EXCEPT EA-D)
PJ2
DECODER
(EOH-DN (Y2) ONLY)
PJ3
PJ4
PJ5
PJ6
PJ7
PJ8
*PJ3-6
EA-D ONLY
*WF39
EA-D ONLY:1P-12P
EXCEPT EA-D:1P-11P
EXCEPT EA-D
EDG, EOH-D/DN, EOG-D ONLY
WF35
WF36
WF37
WF38
*WF39
TV.R.IN
A.GND
TV.L.IN
TV.R.OUT
TV.L.OUT
TV.CTL
TV.V.IN
V.GND
TV.V.OUT
DEC.R.IN
DEC.L.IN
DEC.R.OUT
DEC.L.OUT
DEC.V.OUT
DEC.V.IN
DEC.CTL
R.OUT
L.OUT
R.V.IN
L.IN
R.IN
A.IDL12V
V.OUT
*WF139
EA-D ONLY:1P-12P
EXCEPT EA-D:1P-11P
IN/OUT (B) PCB
V1190A503B
DRUM
MOTOR
(SDV-0302A)
V5
CTL
PG
M.GND
FG
P129
P131
A.L.IN
A.L.OUT
A.R.OUT
A.R.IN
FULL TRACK
ERASE HEAD
WP128
FE
FE GND
ROTARY HEAD B
SP CH-2
SP CH-1
LP CH-1
LP CH-2
P130
SP-2
SP COM
SP-1
LP-1
LP COM
LP-2
GND
TP3
REC.I
PRE AMP & Hi-Fi P
V1190A502A
WP140
R.R.IN
R.L.IN
R.V.IN
EA-D ONLY
WF141
TU.L.IN
TU.R.IN
P105
P605
IDL12V
IDL5V
GND
P104
P604
TU.VIDEO
CON.V
CON.A
P3
P603
REC.FM
AL5V
PB.Y.FM
SP
PB.ENVE
INSERT
C.ROT
AFC.H
V.REC.VOL
ENVE.DET
HEAD.CTL
SLOW
V.SWP
N.C
P102
WF402
DM.FG
DM.PG
DM.CONT
DM.POW
P101
P401
NTSC
FM.MONO
T.MUTE
AL12V
A.MUTE
AV2.L
AV2.R
AV2.V
A.IDL.12V
L.IN
IDL.5V
DEC.V.IN
V.IN
AV1/AV2
INT/EXT
P337
AL.IN
AL.OUT
AR.OUT
AR.IN
IN/OUT (C) PCB
V1190A503C
*P306
*P606
SAT
WS/NOR
INT/EXT
AV1/AV2
A.MUTE
TV/VCR
WS.J
*P306
EA-D ONLY:3P-5P
EXCEPT EA-D:2P-5P
*P606
EA-D ONLY:2P-4P
EXCEPT EA-D:1P-4P
P307
P607
V.IN
V.GND
V.OUT
TU.A.R
TU.A.L
GND
*P343
AV2.V.IN
AV2.L.IN
AV2.R.IN
A.IDL12V
R.L.IN
R.R.IN
*P343
EA-D ONLY:1P-9P
EXCEPT EA-D:1P-7P
P143
EA-D ONLY
NC
EXCEPT EA-D
FRONT PCB
V1214A504B
P627
P327
SD P
BGP
N.C
PB
SDC EE
AL 5V
SDC PB
AFC H
C OUT
NP
C IN
P624
P24
B.G.P
CT DET
AL 12V
COMB OUT
COMB IN
P316
P16
S0
S1
S2
S3
S4
S5
S6
S7
S8
S9
SECAM DET & NTSC
PCB
V1190A503D
EDG ONLY
CDR PCB
V1188A5010
EOG-D ONLY

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER' S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨. ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL. NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (WITH EO-D MODEL)

D
E
F
G
H
I
DRUM MOTOR
(SDV-0302A)
ROTARY HEAD BLOCK
FULL TRACK ERASE HEAD
OSC PCB
V1190A502B
A/C HEAD PCB
V1102B5120
AUDIO REC/PB
SIDE ERASE
CONTROL
PRE AMP & Hi-Fi PCB
V1190A502A
TV TUNER
RF CONVERTER
VIF UNIT
ANT IN
RF OUT
MAIN PCB
V1190A501A
POWER SUPPLY PCB
TR (A) P
V1190A5
TR (B) P
V1190A5
& NTSC PCB
CDR PCB
V1188A5010
EOG-D ONLY
OPERATION PCB
V1214A504A
CAPSTAN MOTOR
(SCV-0602A)
MODE DETECT SW
LM/MS PCB
LOADING MOTOR
CONN
EK-N
EOH-N/DN
ONLY

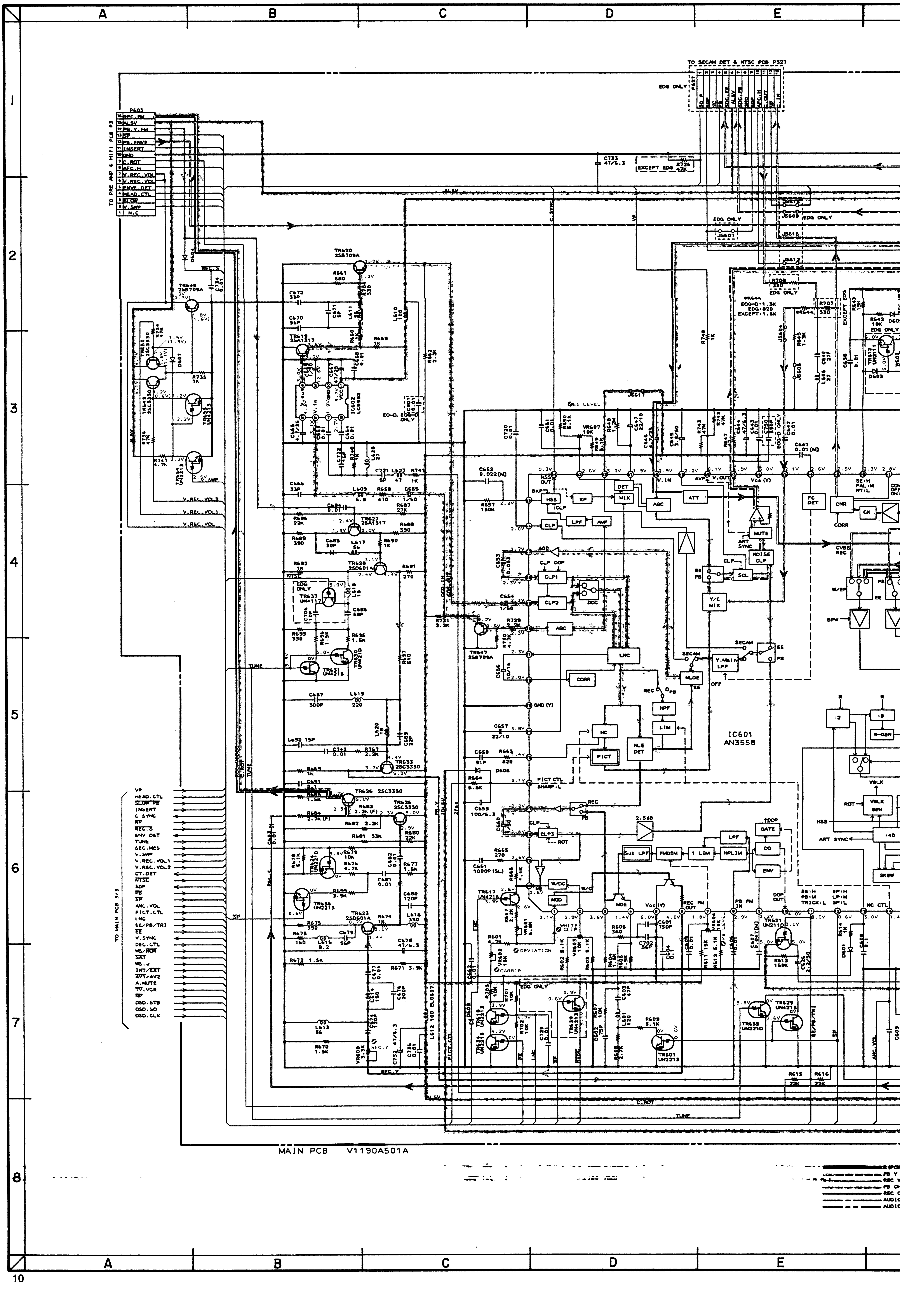


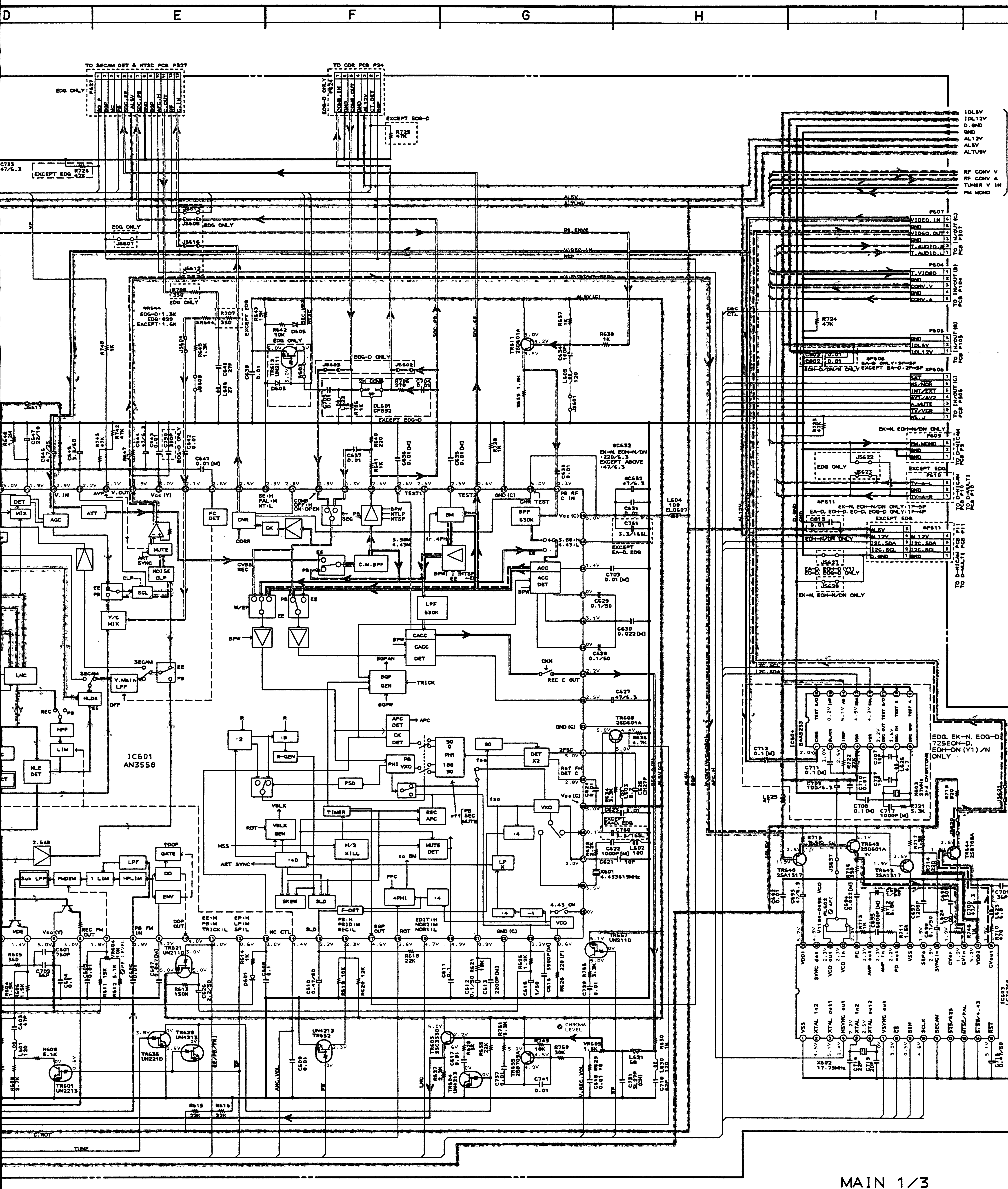
F
G
H
I
J
1
2
3
4
5
6
7
8
OSC PCB
V1190A502B
P272
SE H
A/C REC
F.E
GND
AL 12V
A OSC
P172
P122
A/C REC
A/C PB
GND
SE.H
P1
A/C REC
A/C PB
H.GND
SE H
CTL -
CTL +
AUDIO REC/PB
SIDE ERASE
CONTROL
A/C HEAD PCB
V1102B5120
TV TUNER
RF IN
EA-D:TERS1-002C
EDG, EOG-D, EOH-D/DN/N :TEKE1-042A
EK-N:TEKB1-014A
EO-D:TEKE1-076A
UHF
VT
VH
AGC
VL
AFT
B
IF
RF CONVERTER
VTR TV OUT
ANT IN
RF OUT
EA-D:YAA21-0809G
EDG:YAA21-1001G G/K
EK-N:MDLK68733A
EO-D, EOG-D, EOH-D/DN/N :MDLK6D999A
V.IN
A.IN
MOD.B
NC
BST.B
VIF UNIT
EXCEPT EDG:6801297A1
EDG:6801294A1
CN2
GND
SIF
*CN1
AFT.OUT
AGC.OUT
V.OUT
GND
IF.IN
Vcc
A.OUT
U.AGC
V.AGC
*CN1
1P~6P :EA-D
1P~9P :EO-D, EOG-D, EOH-D/DN/N
1P~7P :EDG
AREC/MUTE
HIFI CLK
HI.E.DET
HIFI CS
WP122
CTL -
CTL +
WF219
FL+
FL-
-30V
REG6V
GND
M.GND
REG15V
+38V
P2
POWER SUPPLY PCB
V1182A5070 (EXCEPT EOG-D)
V1182A5030 (EOG-D ONLY)
AIN PCB
190A501A
P610
TU.A.R
GND
TU.A.L
P10
D-NICAM PCB
V1190A5080
(EK-N, EOH-N/DN ONLY)
P62
SIF
GND
EK-N
EOH-N/DN
ONLY
P609
FM MONO
GND
GND
P9
D-MULTI PCB
V1190A5070
(EA-D, EO-D, EOG-D, EOH-D ONLY)
*P611
D.GND
I²C SCL
I²C SDA
AL 12V
AL 5V
*P611
1P~5P:EK-N, EOH-N/DN
1P~4P:EA-D, EO-D, EOG-D, EOH-D
*P11
*P11
1P~5P:EK-N, EOH-N/DN
1P~4P:EA-D, EO-D, EOG-D, EOH-D
WF254
TR BASE1
REG15V
IDL12V
⚠ TR202
2SD2396
WF254
12.6V
15.2V
12.1V
TR (A) PCB
V1190A501B
P403
TR BASE2
REG15V
IDL12V
⚠ TR399
2SD2375
WF303
11.3V
15.2V
10.7V
TR (B) PCB
V1190A501C
T6
T5
T4
T3
T2
T1
T0
RESET
-30V
IDL5V
K3
K2
K1
K0
BU.GND
FL-
FL+
D.GND
D.GND
TION PCB
4A504A
P420
AL 5V
CM.POW
A.GND
CM.FG
CM LIMIT
F/R
M.GND
CM CONT
CAPSTAN MOTOR
(SCV-0602A)
P453
RSW 1
RSW 2
GND
RSW 4
RSW 3
LM+
LM-
MODE DETECT SW
RSW 1
RSW 2
GND
RSW 4
RSW 3
LM/MS PCB
LOADING MOTOR
M

CONNECTION DIAGRAM

No.18-1 V121401M

A1


A
B
C
D
E
1
2
3
4
5
6
7
8
TO SECAM DET & NTSC PCB P327
EDG ONLY
P627
P602
REC.FM
AL5V
PB.Y.FM
SP
PB.ENVE
INSERT
GND
C.ROT
AFC.H
V.REC.VOL
ENVE.DET
HEAD.CTL
SLOW
V.SWP
N.C
TO PRE AMP & HIFI PCB P3
EXCEPT EDG
C733 47/6.3
R726 47K
AL5V
C.SYNC
VP
J5607
J5608
J5616
J5612
J5617
TR620 2SB709A
TR648 2SB709A
TR650 2SC3330
TR643 2SC3330
TR653 UN4213
TR654 UN4213
TR619 2SA1317
IC602 LC8992
TR627 2SA1317
TR628 2SD601A
TR637 UN4117
TR630 UN4211D
TR631 UN4215
TR633 2SC3330
TR626 2SC3330
TR625 2SC3330
TR624 UN4211D
TR634 UN2213
TR623 2SD601A
TR647 2SB709A
TR617 UN4215
TR632 UN4215
TR639 UN4213
TR601 UN2213
TR621 UN2111D
TR635 UN221D
TR629 UN4213
TR612 UN2211
V.REC.VOL2
V.REC.VOL1
V.REC.VOL
TUNE
NTSC
EE LEVEL
HSS OUT
HSS
KP
DET
MIX
AGC
ATT
CLP
LPF
AMP
MUTE
NOISE CLP
SCL
ART SYNC
CLP1
CLP2
CLP3
DOC
LNC
CORR
Y/C MIX
SECAM
Y.Main LPF
NLDE
HPF
LIM
NC
PICT
NLE DET
IC601
AN3558
PICT CTL SHARP:L
W/DC
MDE
MOD
Sub LPF
FMDEM
1 LIM
HPLIM
DO
ENV
GATE
DOUT
DOP OUT
REC FM OUT
PB FM IN
DEVIATION
CARRIR
WHITE CLIP
FC DET
CNR
CK
CVBS REC
W/EP
BPW
VBLK GEN
ROT
HSS
ART SYNC
SKEW
R-GEN
REC.S
REC.Y
C.ROT
TUNE
AL5V
VP
HEAD.CTL
SLOW PB
INSERT
C.SYNC
RF
REC.S
ENV DET
TUNE
SEC.MES
V.SWP
V.REC.VOL1
V.REC.VOL2
CT.DET
NTSC
SDP
PB
SP
ANL.VOL
PICT.CTL
LNC
EE/PB/TRI
EE
V.SYNC
DEL.CTL
WS/NOR
SAT
WS.J
INT/EXT
AVT/AV2
A.MUTE
TV.VCR
RF
OSD.STB
OSD.SO
OSD.CLK
TO MAIN PCB 3/3
MAIN PCB V1190A501A


D
E
F
G
H
I
TO SECAM DET & NTSC PCB P327
TO CDR PCB P24
EDG ONLY
EDG-D ONLY
EXCEPT EDG-D
R725 47K
EXCEPT EDG R726 47K
C733 47/6.3
AL5V
ALTU9V
JS608 EDG ONLY
JS607
JS616
JS612
PB ENVE
VIDEO IN
BGP
V.OUT SYNC.DET
L708 330
EDG ONLY
AL5V (C)
R707 330
R644 EDG-D:1.3K EDG:820 EXCEPT:1.6K
R642 10K
D605
EDG ONLY
TR612 UN2211
D603
JS603
EDG-D ONLY
JS602
DL601 CF892
EXCEPT EDG-D
TR611 2SD601A
R637
R638 1K
R724 47K
L605 120
JS601
R635 1.8K
R748 1K
JS617
C632 EK-N, EOH-N/DN :220/6.3 EXCEPT ABOVE :47/6.3
C632 47/6.3
L604 100 EL0607
C631 0.1
C761 3.3/16SL
EXCEPT EA-D, EDG
C703 0.01
C629 0.1/50
C630 0.022
C628 0.1/50
C627 47/6.3
TR608 2SD601A
R636 4.7K
V.IN
DET
MIX
AGC
ATT
AVP
V.OUT
Vcc (Y)
FC DET
CNR
SE:H PAL:M NT:L
COMB OFF:H ON:OPEN
SEC
BPW
NTLP
NTSP
TEST1
TEST2
GND (C)
CNR TEST
PB RF C IN
BPF 630K
Vcc (C)
3.58:H 4.43:L
ACC
ACC DET
MUTE
ART SYNC
NOISE CLP
CLP
SCL
CK
CORR
CVBS REC
EE
PB
C.M.BPF
3.58M 4.43M
BM
fr.4PH
BPW
NTSP
Y/C MIX
W/EP
LPF 630K
CACC
CACC DET
BGPAN
BGP GEN
TRICK
BGPM
CKN
REC C OUT
SECAM
Y.Main LPF
LNC
NLDE
REC
HPF
LIM
NLE DET
IC601 AN3558
APC DET
CK DET
APC
R
÷2
÷8
R-GEN
PH1
90 0 PH1 180 90
DET X2
2FSC
Ref FH DET C
PB VXO
PSD
VBLK
VBLK GEN
ROT
HSS
ART SYNC
÷40
TIMER
REC AFC
H/2 KILL
MUTE DET
PB SEC MUTE
VXO
÷4
LP X
SKEW
SLD
4PH1
F-DET
FPC
4.43 ON
VCO
2.5dB
LPF
GATE
DO
ENV
Sub LPF
FMDEM
1 LIM
HPLIM
DOP OUT
PB FM IN
REC FM OUT
Vcc (Y)
MDE
EE:H PB:M TRICK:L
EP:H LP:M SP:L
NC CTL
SLD
PB:H PB:D:M REC:L
BGP OUT
ROT
EDIT:H NOR2:M NOR1:L
TR657 UN211D
X601 4.433619MHz
C622 1000P
L602 100
C621 10P
EXCEPT EA-D, EDG
C760 3.3/16SL
R605 360
C601 750P
C702 56P
TR621 UN211D
R613 150K
R618 22K
TR629 UN4213
TR635 UN221D
TR601 UN2213
R609 5.1K
L601 120
C603 47P
UN4213 TR652
TR603 2SC3330
TR604 UN4213
TR658 2SD703A
R749 10K
R750 30K
VR605 1.5K
CHROMA LEVEL
C741 0.01
L621 68
R615 22K
R616 22K
C.ROT
TUNE
ANC.VOL
V.REC.VOL
IDL5V
IDL12V
D.GND
GND
AL12V
AL5V
ALTU9V
RF CONV V
RF CONV A
TUNER V IN
FM MONO
P607
VIDEO IN
VIDEO OUT
T.AUDIO.R
T.AUDIO.L
TO IN/OUT (C) PCB P307
P604
T.VIDEO
CONV.V
CONV.A
TO IN/OUT (B) PCB P104
P605
TO IN/OUT (B) PCB P105
C602
EOH-D/DN/N ONLY
P606 EA-D ONLY:3P-5P EXCEPT EA-D:2P-5P
SAT
WS/NOR
INT/EXT
AV1/AV2
A.MUTE
TV/VCR
WS.J
TO IN/OUT (C) PCB P306
R723 47K
EK-N, EOH-N/DN ONLY
P609
FM.MONO
TO D-N(CAM) PCB P9
EDG ONLY
JS622
JS623
EXCEPT EDG
P610
TV-A-L
TV-A-R
TO D-N(CAM) PCB P10
P611 EK-N, EOH-N/DN ONLY:1P-5P EA-D, EOH-D, EO-D, EOG-D ONLY:1P-4P
C613 0.01
EXCEPT EDG
EOH-N/DN ONLY
AL5V
AL12V
I2C.SDA
I2C.SCL
D.GND
TO D-N(CAM) PCB P11
TO D-MULTI PCB P11
JS627 EA-D, EOH-D (Y1) EO-D, EOG-D ONLY
JS628
EK-N, EOH-N/DN ONLY
DEC CTL
AL12V
D.GND
I2C SCL
I2C SDA
IC604 SAA5233
TEST I/O
BLACK
REF
VDD
DEC OUT
TEST
C712 0.1
C711 0.1
C703 100/6.3
C708 0.1
C717 1000P
X603 27MHz 3rd OVERTONE
R721 3.3K
R718 820
EDG, EK-N, EOG-D, 725EOH-D, EOH-DN (Y1)/N ONLY
L625 47
R715
TR642 2SD601A
TR640 2SA1317
JS637
TR643 2SA1317
TR644 2SD709A
V1184-0498 VCO
ΦAFC
VDD1
SYNC det
XTAL out
VCO in
FC
AMP out
PD out
VSS
SEPs
SYNCin
CVer
CVin
VDD2
CVout
VSS
XTAL in2
XTAL out1
HSYNC out
XTAL in2
XTAL out2
VSYNC out
CS
SIN
SCLK
SECAM
525/625
NTSC/PAL
3.58/4.43
RST
X602 17.734MHz
IC603
AFC.H
V.OUT (V.SYNC.DET)
ALSV
BGP

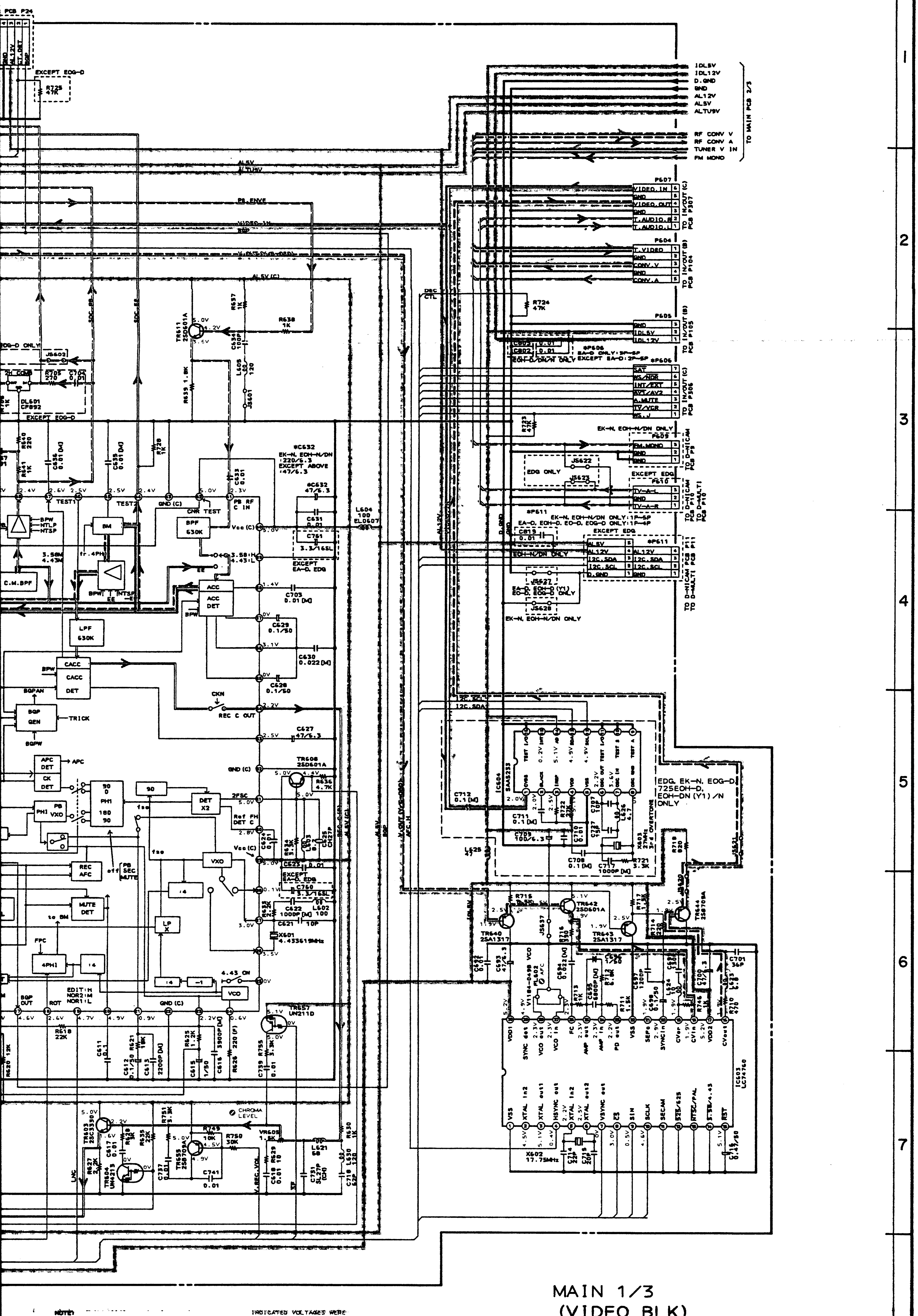
B (POWER SUPPLY) LINE
PB Y SIGNAL LINE
REC Y SIGNAL LINE
PB CHROMA SIGNAL LINE
REC CHROMA SIGNAL LINE
AUDIO OUT SIGNAL LINE
AUDIO IN SIGNAL LINE

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL INDUCTORS IN µH
ALL DIODES ARE 1SS131T-77

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
( ) : REC MODE
(TAPE USED : PAL COLOUR BAR TAPE
TAPE SPEED : SP)

MAIN 1/3
(VIDEO BLK)
SCHEMATIC DIAGR

No.18-2 V12140

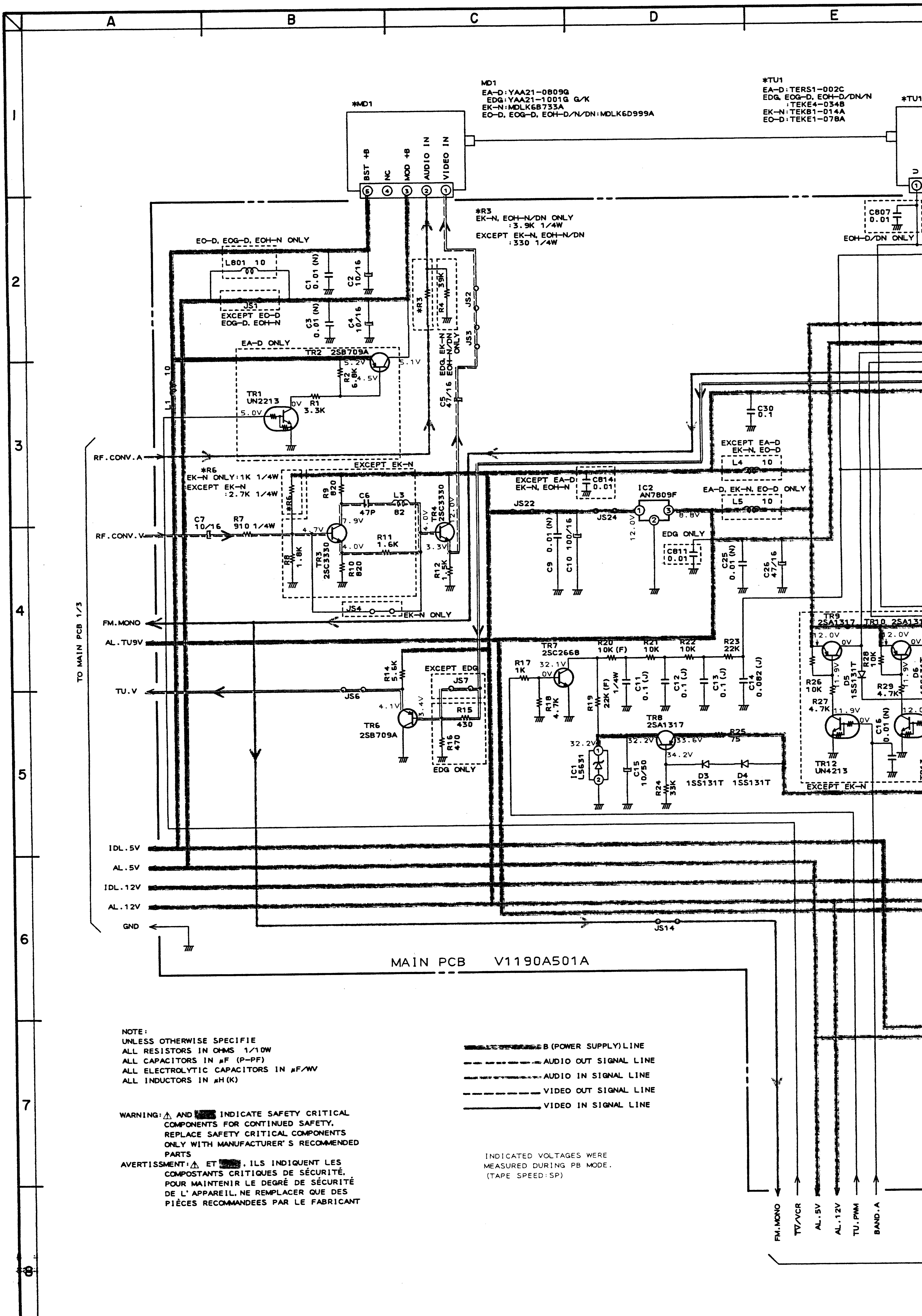

IDL5V
IDL12V
D.GND
GND
AL12V
AL5V
ALTU9V
RF CONV V
RF CONV A
TUNER V IN
FM MONO
TO MAIN PCB 2/3
P607
VIDEO.IN
GND
VIDEO.OUT
GND
T.AUDIO.R
T.AUDIO.L
TO IN/OUT (C) PCB P307
P604
T.VIDEO
GND
CONV.V
GND
CONV.A
TO IN/OUT (B) PCB P104
P605
GND
IDL5V
IDL12V
TO IN/OUT (B) PCB P105
*P606
SAT
WS/NOR
INT/EXT
AV1/AV2
A.MUTE
TV/VCR
WS.J
TO IN/OUT (C) PCB P306
EK-N, EOH-N/DN ONLY
P609
FM.MONO
GND
GND
TO D-NICAM PCB P9
EXCEPT EDG
P610
TV-A-L
GND
TV-A-R
TO D-NICAM PCB P10
TO D-MULTI PCB P10
*P611
AL12V
I2C.SDA
I2C.SCL
GND
TO D-NICAM PCB P11
TO D-MULTI PCB P11
EXCEPT EOG-D
R725 47K
PB ENVE
VIDEO IN
AL5V (C)
TR611 2SD601A
R637 1K
R638 1K
R724 47K
DEC CTL
EOG-D ONLY
JS602
DL601 CP892
EXCEPT EOG-D
R723 47K
JS622
EDG ONLY
JS623
*C632 EK-N, EOH-N/DN :220/6.3 EXCEPT ABOVE :47/6.3
TEST1
TEST2
GND (C)
CNR TEST
PB RF C IN
BPF 630K
BM
BPW
NTLP
NTSP
C.M.BPF
ACC
ACC DET
LPF 630K
CACC
CACC DET
BGPAN
BGP GEN
TRICK
BGPW
APC DET
APC
CK DET
PH1
PB VXO
90
0
180
DET X2
2FSC
Ref FH DET C
REC AFC
PB SEC MUTE
VXO
MUTE DET
to BM
LP X
FPC
4PH1
÷4
4.43 ON
VCO
BGP OUT
ROT
EDIT:H NOR2:M NOR1:L
CKN
REC C OUT
TR608 2SD601A
X601 4.433619MHz
TR657 UN211D
L604 100 EL0607
C761 3.3/16L
C760 3.3/16L
EXCEPT EA-D, EDG
#P506 EA-D ONLY:3P-5P EXCEPT EA-D:2P-5P
#P611 EK-N, EOH-N/DN ONLY:1P-5P EA-D, EOH-D, EOG-D ONLY:1P-4P
JS627 EA-D, EOH-D (Y1) EO-D, EOG-D ONLY
JS628 EK-N, EOH-N/DN ONLY
IC604 SAA5252
EDG, EK-N, EOG-D, 725EOH-D, EOH-DN (Y1) /N ONLY
X603 27MHz 3rd OVERTONE
TR640 2SA1317
TR642 2SD601A
TR643 2SA1317
TR644 2SB709A
IC603 LC74760
X602 17.734MHz
VCO
PLL602
AFC
VDD1
SYNC det
VCO out
VCO in
FC
AMP
AMP in
PD out
VSS
SEP in
SYNC in
CVin
VDD2
CVout
VSS
XTAL in2
XTAL out1
HSYNC out
XTAL in2
XTAL out2
VSYNC out
CS
SIN
SCLK
SECAM
525/625
NTSC/PAL
3.58/4.43
RST
CHROMA LEVEL
VR605 1.8K
TR603 2SC3330
TR604 UN4215
TR658 2SB709A
R749 10K
R750 30K
V.REC.VOL
SP
LNC
L621 68
ALSV
V.OUT (V/C/DEC)
AFC.H
I2C.SCL
I2C.SDA
D.GND
AL12V

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV
ALL INDUCTORS IN μH
ALL DIODES ARE 1SS131T-77

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
( ):REC MODE
(TAPE USED:PAL COLOUR BAR TAPE
TAPE SPEED:SP)

MAIN 1/3
(VIDEO BLK)
SCHEMATIC DIAGRAM

No.18-2 V121402M
A0

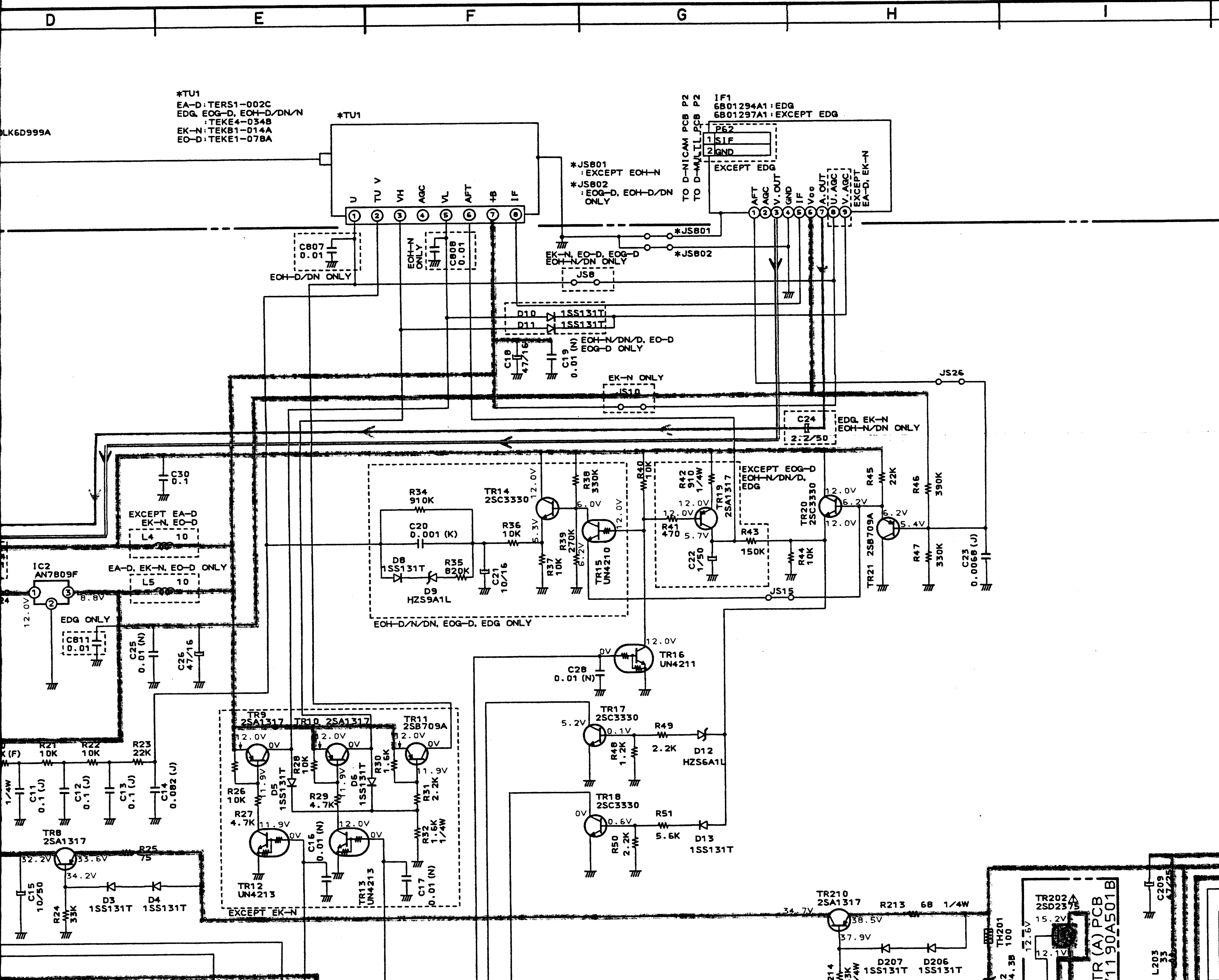

A
B
C
D
E
1
2
3
4
5
6
7
8
MD1
EA-D:YAA21-0809G
EDG:YAA21-1001G G/K
EK-N:MDLK6B733A
EO-D, EOG-D, EOH-D/N/DN:MDLK6D999A
*MD1
BST +B
NC
MOD +B
AUDIO IN
VIDEO IN
*TU1
EA-D:TERS1-002C
EDG, EOG-D, EOH-D/DN/N
:TEKE4-034B
EK-N:TEKB1-014A
EO-D:TEKE1-078A
*R3
EK-N, EOH-N/DN ONLY
:3.9K 1/4W
EXCEPT EK-N, EOH-N/DN
:330 1/4W
C807 0.01
EOH-D/DN ONLY
EO-D, EOG-D, EOH-N ONLY
L801 10
JS1
EXCEPT EO-D
EOG-D, EOH-N
C1 0.01 (N)
C2 10/16
C3 0.01 (N)
C4 10/16
*R3
R4 39K
JS2
JS3
EDG, EK-N EOH-N/DN ONLY
EA-D ONLY
TR2 2SB709A
5.2V
5.1V
4.5V
R2 6.8K
TR1 UN2213
0V
R1 3.3K
5.0V
L1 10
C5 47/16
C30 0.1
EXCEPT EA-D EK-N, EO-D
L4 10
RF.CONV.A
*R6
EK-N ONLY:1K 1/4W
EXCEPT EK-N :2.7K 1/4W
EXCEPT EK-N
R9 820
C6 47P
L3 82
TR4 2SC3330
EXCEPT EA-D EK-N, EOH-N
C814 0.01
IC2 AN7809F
EA-D, EK-N, EO-D ONLY
L5 10
JS22
JS24
C7 10/16
R7 910 1/4W
RF.CONV.V
4.7V
7.9V
4.0V
12.0V
R11 1.6K
4.0V
3.3V
8.8V
EDG ONLY
C811 0.01
R8 1.8K
TR3 2SC3330
R10 820
R12 1.5K
C9 0.01 (N)
C10 100/16
C25 0.01 (N)
C26 47/16
JS4
EK-N ONLY
TO MAIN PCB 1/3
FM.MONO
AL.TU9V
TU.V
TR9 2SA1317
TR10 2SA1317
12.0V
0V
R14 5.6K
EXCEPT EDG
JS7
JS6
R15 430
TR6 2SB709A
4.1V
3.4V
R16 470
EDG ONLY
TR7 2SC2668
R17 1K
32.1V
0V
R18 4.7K
R20 10K (F)
R21 10K
R22 10K
R23 22K
R19 22K (F) 1/4W
C11 0.1 (J)
C12 0.1 (J)
C13 0.1 (J)
C14 0.082 (J)
TR8 2SA1317
32.2V
33.6V
34.2V
R25 75
IC1 L5631
C15 10/50
R24 33K
D3 1SS131T
D4 1SS131T
R26 10K
R27 4.7K
R28 10K
R29 4.7K
D5 1SS131T
11.9V
TR12 UN4213
C16 0.01 (N)
EXCEPT EK-N
IDL.5V
AL.5V
IDL.12V
AL.12V
GND
JS14
MAIN PCB V1190A501A
B (POWER SUPPLY) LINE
AUDIO OUT SIGNAL LINE
AUDIO IN SIGNAL LINE
VIDEO OUT SIGNAL LINE
VIDEO IN SIGNAL LINE
FM.MONO
TV/VCR
AL.5V
AL.12V
TU.PWM
BAND.A

NOTE:
UNLESS OTHERWISE SPECIFIE
ALL RESISTORS IN OHMS 1/10W
ALL CAPACITORS IN µF (P-PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL INDUCTORS IN µH (K)

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

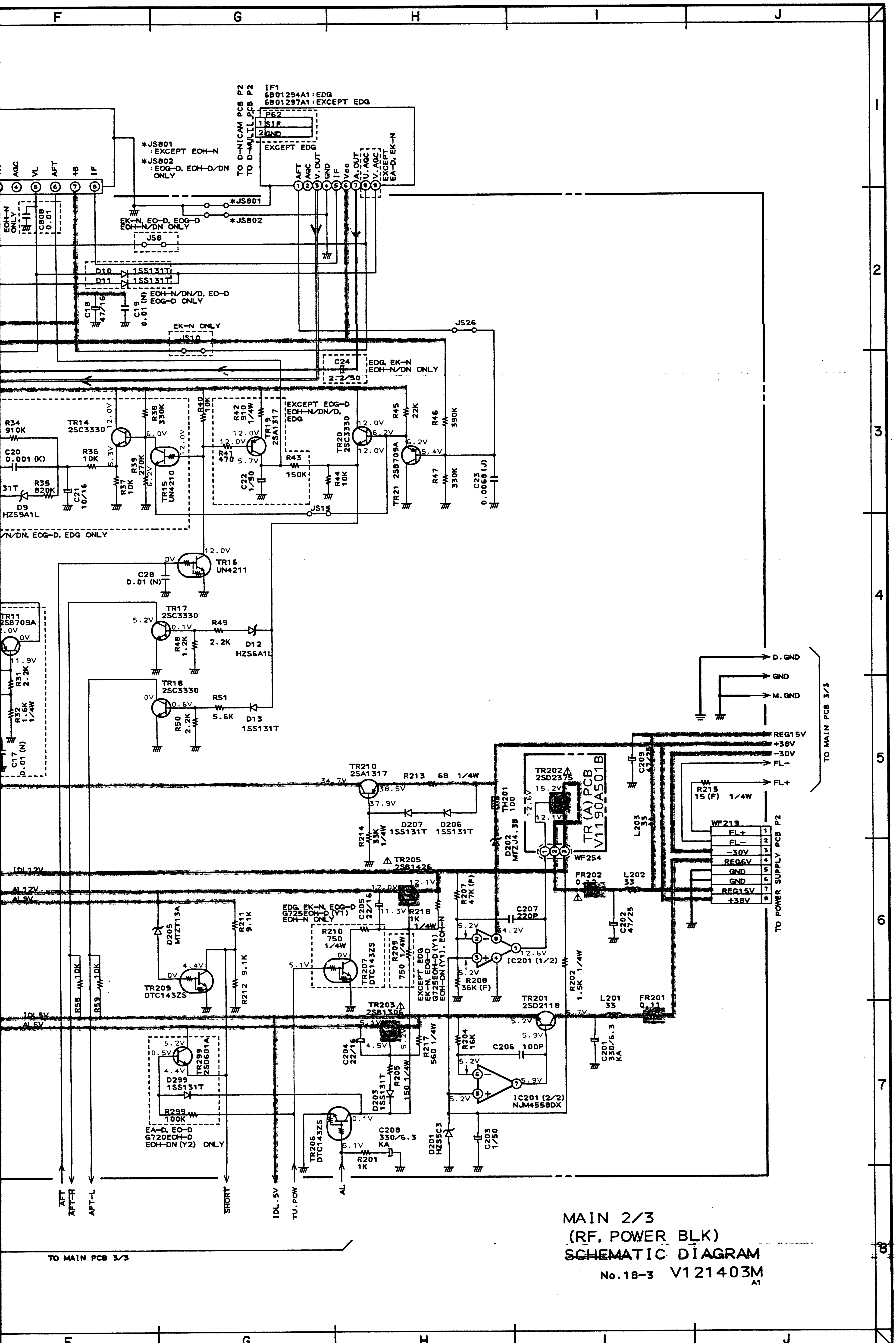
AVERTISSMENT: ⚠ ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE SPEED:SP)

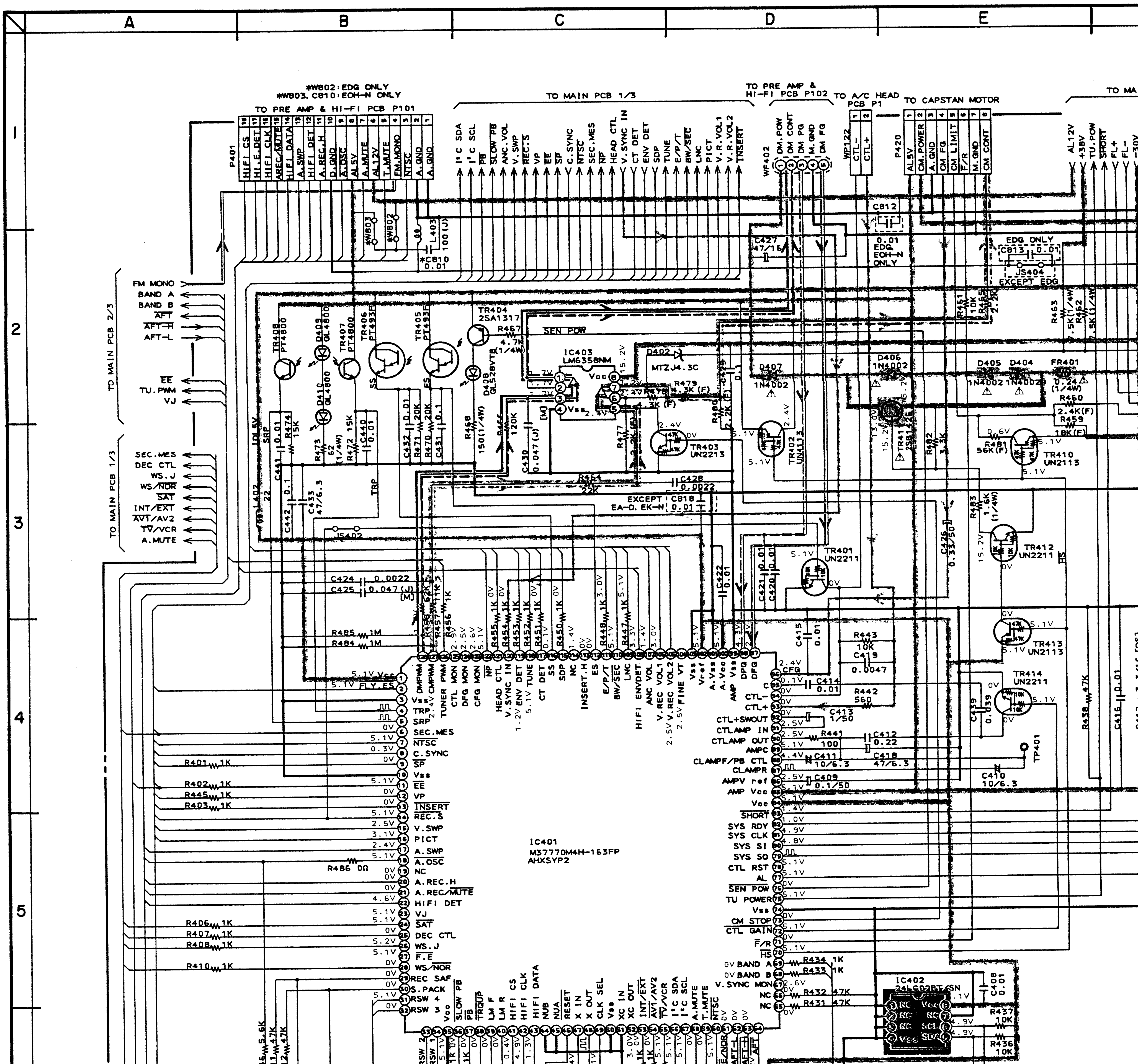

D
E
F
G
H
I
*TU1
EA-D:TERS1-002C
EDG, EOG-D, EOH-D/DN/N
:TEKE4-034B
EK-N:TEKB1-014A
EO-D:TEKE1-078A
LK6D999A
*TU1
U
TU V
VH
AGC
VL
AFT
+B
IF
C807 0.01
EOH-D/DN ONLY
EOH-N ONLY
C808 0.01
*JS801 :EXCEPT EOH-N
*JS802 :EOG-D, EOH-D/DN ONLY
EK-N, EO-D, EOG-D
EOH-N/DN ONLY
JS8
*JS801
*JS802
TO D-NICAM PCB P2
TO D-MULTI PCB P2
IF1
6B01294A1:EDG
6B01297A1:EXCEPT EDG
P62
1 SIF
2 GND
EXCEPT EDG
AFT
AGC
V.OUT
GND
IF
Vcc
A.OUT
U.AGC
V.AGC
EXCEPT EA-D, EK-N
D10 1SS131T
D11 1SS131T
EOH-N/DN/D, EO-D
EOG-D ONLY
C18 47/16
C19 0.01 (N)
EK-N ONLY
JS10
JS26
C24 2.2/50
EDG, EK-N
EOH-N/DN ONLY
C30 0.1
EXCEPT EA-D
EK-N, EO-D
L4 10
EA-D, EK-N, EO-D ONLY
L5 10
IC2 AN7809F
8.8V
12.0V
EDG ONLY
C811 0.01
C25 0.01 (N)
C26 47/16
R34 910K
TR14 2SC3330
R38 330K
C20 0.001 (K)
R36 10K
D8 1SS131T
R35 820K
C21 10/16
D9 HZS9A1L
R37 10K
R39 270K
TR15 UN4210
EOH-D/N/DN, EOG-D, EDG ONLY
R40 10K
R42 910 1/4W
TR19 2SA1317
R41 470
C22 1/50
R43 150K
R44 10K
EXCEPT EOG-D
EOH-N/DN/D, EDG
TR20 2SC3330
R45 22K
R46 390K
TR21 2SB709A
R47 330K
C23 0.0068 (J)
JS15
TR16 UN4211
C28 0.01 (N)
TR17 2SC3330
R49 2.2K
D12 HZS6A1L
R48 1.2K
TR18 2SC3330
R51 5.6K
D13 1SS131T
R50 2.2K
TR9 2SA1317
TR10 2SA1317
TR11 2SB709A
R26 10K
R28 10K
D5 1SS131T
R29 4.7K
D6 1SS131T
R30 1.6K
R31 2.2K
R27 4.7K
R32 1.6K 1/4W
TR12 UN4213
C16 0.01 (N)
TR13 UN4213
C17 0.01 (N)
EXCEPT EK-N
R21 10K
R22 10K
R23 22K
C11 0.1 (J)
C12 0.1 (J)
C13 0.1 (J)
C14 0.082 (J)
TR8 2SA1317
R25 75
C15 10/50
R24 33K
D3 1SS131T
D4 1SS131T
JS14
TR210 2SA1317
R213 68 1/4W
D207 1SS131T
D206 1SS131T
R214 33K 1/4W
TH201 100
D202 MTZJ4.3B
TR205 2SB1425
TR202 2SD2375
TR (A) PCB V1190A501B
WF254
C209 47/25
L203 33
FR202 0.13
L202 33
IDL 12V
AL 12V
AL 9V
D205 MTZJ13A
R211 9.1K
TR209 DTC143ZS
R212 9.1K
R58 10K
R59 10K
EDG, EK-N, EOG-D
G725EOH-D (Y1)
EOH-N ONLY
R210 750 1/4W
C205 22/16
R218 1K 1/4W
TR207 DTC143ZS
R209 750 1/4W
EXCEPT EDG
EK-N, EOG-D
G725EOH-D (Y1)
EOH-DN (Y1), EOH-N
R207 47K (F)
C207 220P
IC201 (1/2)
R208 36K (F)
C202 47/25
R202 1.5K 1/4W
TR203 2SB1306
TR201 2SD2118
L201 33
FR201 0.11
IDL 5V
AL 5V
TR299 2SD601A
D299 1SS131T
R299 100K
EA-D, EO-D
G720EOH-D
EOH-DN (Y2) ONLY
C204 22/16
D203 1SS131T
R205 150 1/4W
R217 560 1/4W
R204 16K
C206 100P
IC201 (2/2) NJM4558DX
C201 330/6.3 KA
TR206 DTC143ZS
C208 330/6.3 KA
R201 1K
D201 HZS5C3
C203 1/50
Y) LINE
NAL LINE
NAL LINE
NAL LINE
NAL LINE
FM.MONO
TV/VCR
AL.5V
AL.12V
TU.PWM
BAND.A
BAND.B
AFT
AFT-H
AFT-L
SHORT
IDL.5V
TU.POW
AL
TO MAIN PCB 3/3

MAIN 2/3
(RF, POWER B
~~SCHEMATIC~~ D

No.18-3 V1


IF1
6B01294A1 : EDG
6B01297A1 : EXCEPT EDG
TO D-NICAM PCB P2
TO D-MULTI PCB P2
P62
SIF
GND
EXCEPT EDG
AFT
AGC
V.OUT
GND
IF
Vcc
A.OUT
U.AGC
V.AGC
EXCEPT EA-D, EK-N
*JS801 : EXCEPT EOH-N
*JS802 : EOG-D, EOH-D/DN ONLY
EK-N, EO-D, EOG-D
EOH-N/DN ONLY
JS8
EOH-N ONLY
C808 0.01
D10 1SS131T
D11 1SS131T
EOH-N/DN/D, EO-D
EOG-D ONLY
C18 47/16
C19 0.01 (N)
EK-N ONLY
JS10
JS26
C24 2.2/50
EDG, EK-N
EOH-N/DN ONLY
R34 910K
TR14 2SC3330
R38 330K
R40 10K
R42 910 1/4W
TR19 2SA1317
EXCEPT EOG-D
EOH-N/DN/D, EDG
TR20 2SC3330
R45 22K
R46 390K
C20 0.001 (K)
R36 10K
R39 270K
TR15 UN4210
R41 470
C22 1/50
R43 150K
R44 10K
TR21 2SB709A
R47 330K
C23 0.0068 (J)
R35 820K
C21 10/16
R37 10K
D9 HZS9A1L
JS15
N/DN, EOG-D, EDG ONLY
TR16 UN4211
C28 0.01 (N)
TR11 2SB709A
TR17 2SC3330
R49 2.2K
D12 HZS6A1L
R48 1.2K
R31 2.2K
TR18 2SC3330
R51 5.6K
D13 1SS131T
R50 2.2K
R32 1.5K 1/4W
C17 0.01 (N)
D.GND
GND
M.GND
TO MAIN PCB 3/3
REG15V
+38V
-30V
FL-
FL+
C209 47/25
TR210 2SA1317
R213 68 1/4W
TR202 2SD2375
TR (A) PCB V1190A501B
TH201 100
D207 1SS131T
D206 1SS131T
R214 33K 1/4W
D202 MTZJ4.3B
L203 33
R215 15 (F) 1/4W
WF219
FL+
FL-
-30V
REG6V
GND
GND
REG15V
+38V
TO POWER SUPPLY PCB P2
WF254
TR205 2SB1426
IDL12V
AL12V
AL9V
R207 47K (F)
FR202 0.12
L202 33
C205 22/16
R218 1K 1/4W
C207 220P
EDG, EK-N, EOG-D
G725EOH-D (Y1)
EOH-N ONLY
R210 750 1/4W
D205 MTZJ13A
R211 9.1K
C202 47/25
IC201 (1/2)
TR207 DTC143ZS
R209 750 1/4W
EXCEPT EDG, EK-N, EOG-D, G725EOH-D (Y1), EOH-DN (Y1), EOH-N
R208 36K (F)
R202 1.5K 1/4W
TR209 DTC143ZS
R212 9.1K
R58 10K
R59 10K
TR201 2SD2118
L201 33
FR201 0.11
IDL5V
AL5V
TR203 2SB1306
C204 22/16
R217 560 1/4W
R204 16K
C206 100P
C201 330/6.3 KA
TR299 2SD601A
D299 1SS131T
D203 1SS131T
R205 150 1/4W
IC201 (2/2) NJM4558DX
R299 100K
EA-D, EO-D
G720EOH-D
EOH-DN (Y2) ONLY
TR206 DTC143ZS
C208 330/6.3 KA
R201 1K
D201 HZS5C3
C203 1/50
AFT
AFT-H
AFT-L
SHORT
IDL.5V
TU.POW
AL
TO MAIN PCB 3/3
F
G
H
I
J
1
2
3
4
5
6
7
8

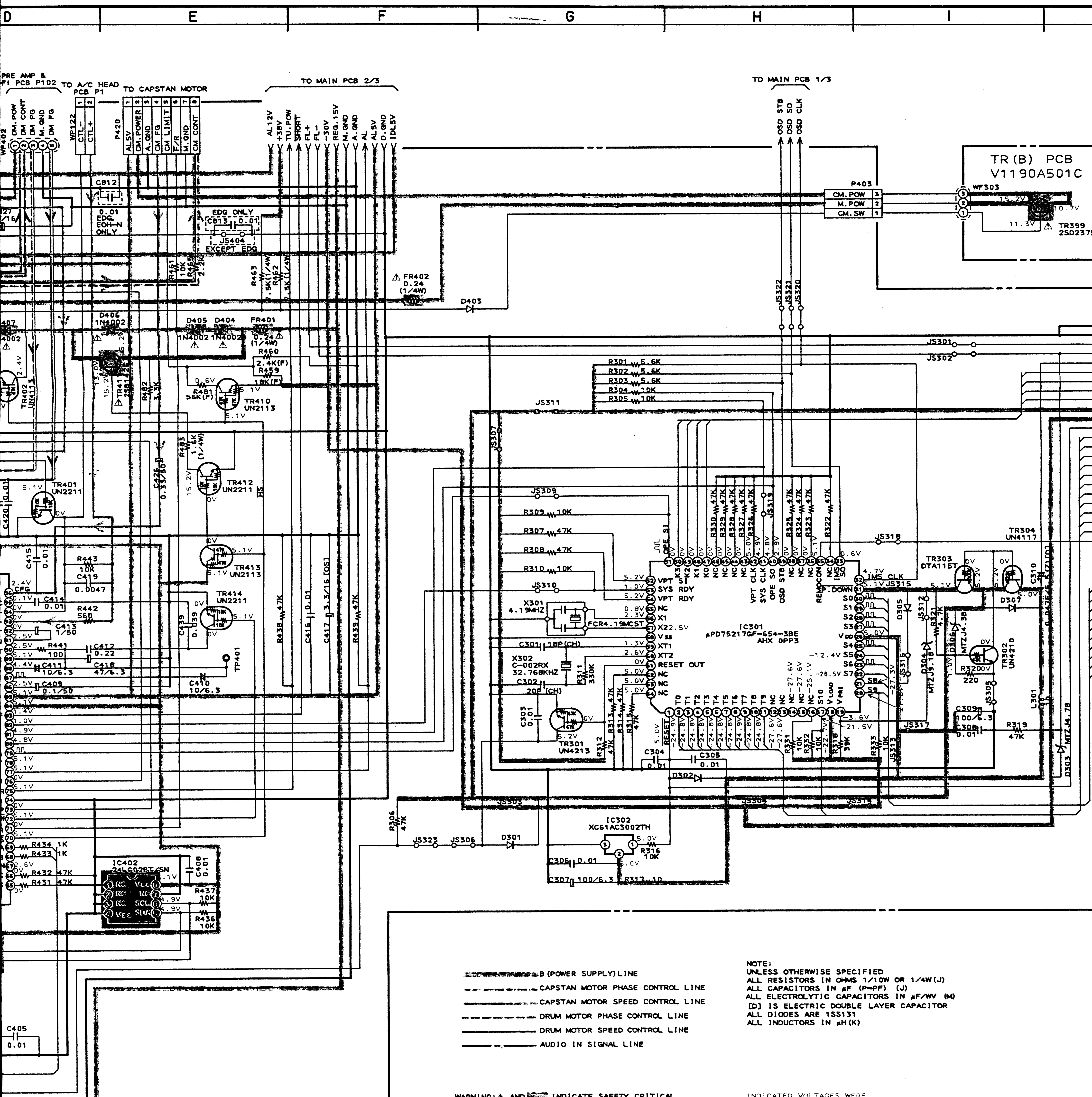
MAIN 2/3
(RF. POWER BLK)
SCHEMATIC DIAGRAM
No.18-3 V121403M A1


A
B
C
D
E
1
2
3
4
5
6
7
8
#W802: EDG ONLY
#W803, C810: EOH-N ONLY
TO PRE AMP & HI-FI PCB P101
TO MAIN PCB 1/3
TO PRE AMP & HI-FI PCB P102
TO A/C HEAD PCB P1
TO CAPSTAN MOTOR
TO MAIN PCB 2/3
TO MAIN PCB 1/3
P401
WF402
WP122
P420
FM MONO
BAND A
BAND B
AFT
AFT-H
AFT-L
EE
TU.PWM
VJ
SEC.MES
DEC CTL
WS.J
WS/NOR
SAT
INT/EXT
AV1/AV2
TV/VCR
A.MUTE
TR408 PT4800
D409 GL4800
TR407 PT4800
D410 GL4800
TR406 PT493F
TR405 PT493F
TR404 2SA1317
D408 GL528VT8
IC403 LM6358NM
D402 MTZJ4.3C
D407 1N4002
D406 1N4002
D405 1N4002
D404 1N4002
TR403 UN2213
TR402 UN1113
TR411 2SB1326
TR410 UN2113
TR401 UN2211
TR412 UN2211
TR413 UN2113
TR414 UN2211
IC401 M37770M4H-163FP AHXSYP2
IC402 24LC02BT/SN
JS402
JS404
EDG ONLY
EXCEPT EDG
EXCEPT C818 EA-D, EK-N
SW401 REC SAFE
SW402 S.PACK
EXCEPT EA-D, EK-N
X401 APS1011 16MHZ
D.GND
M.GND
IC404 LB1641
D411 MTZJ6.2C
TR409 2SA1317
EO-D, EOG-D ONLY
C815 0.01
FR403 0.47(1/4W)
P453
TO LM/VS PCB
RSW 1
RSW 2
D.GND
RSW 4
RSW 3
LM+
LM-
TP402
TP403
TP401
MAIN PCB V1190A501A

CAUTION

IF THE IC402(EEP ROM) IS REPLACED, THE FOLLOWING SHOULD BE PERFORMED TO MAINTAIN PROPER PERFORMANCE. REFER TO THE "INFORMATION" SECTION IN THE PROVIDED SERVICE MANUAL, OR OPERATOR'S MANUAL FOR 5.

1. MODEL CODE PRESET
2. SWITCHING POINT PRESET
3. I-HQ PRESET
4. TRACKING CENTER POSITION(1F) CHECK
5. TUNER PRESET


D
E
F
G
H
I
PRE AMP & FI PCB P102
TO A/C HEAD PCB P1
TO CAPSTAN MOTOR
TO MAIN PCB 2/3
TO MAIN PCB 1/3
WF402
DM.POW
DM CONT
DM PG
M.GND
DM FG
WP122
CTL-
CTL+
P420
AL5V
CM.POWER
A.GND
CM FG
CM LIMIT
F/R
M.GND
CM CONT
AL12V
+38V
TU.POW
SHORT
FL+
FL-
-30V
REG.15V
M.GND
A.GND
AL
AL5V
D.GND
IDL5V
OSD STB
OSD SO
OSD CLK
TR(B) PCB
V1190A501C
WF303
P403
CM.POW
M.POW
CM.SW
TR399
2SD2375
FR402 0.24 (1/4W)
D403
FR401 0.24 (1/4W)
D405 1N4002
D404 1N4002
D406 1N4002
CB12
CB13
JS404
EDG ONLY
EXCEPT EDG
EDG EOH-N ONLY
R460 2.4K(F)
R459 18K(F)
R481 56K(F)
TR410 UN2113
TR412 UN2211
TR413 UN2113
TR414 UN2211
TR401 UN2211
TR402 UN4113
TR411 2SB1126
C426 0.33/50
R483 1.6K (1/4W)
R463 7.5K(1/4W)
R462 7.5K(1/4W)
R461 10K
R465 2.2K
R438 47K
R439 47K
C416 0.01
C417 3.3/16 (OS)
C439 0.039
C410 10/6.3
TP401
R443 10K
C419 0.0047
R442 560
C413 1/50
R441 100
C412 0.22
C411 10/6.3
C418 47/6.3
C409 0.1/50
C414 0.01
C415 0.01
C420 0.01
R434 1K
R433 1K
R432 47K
R431 47K
IC402 24LC02BT/SN
NC
Vcc
SCL
SDA
Vss
C408 0.01
R437 10K
R436 10K
C405 0.01
R301 5.6K
R302 5.6K
R303 5.6K
R304 10K
R305 10K
JS311
JS307
JS309
R309 10K
R307 47K
R308 47K
R310 10K
JS310
X301 4.19MHZ
FCR4.19MC5T
C301 18P(CH)
X302 C-002RX 32.768KHZ
C302 20P(CH)
R311 330K
C303 0.01
TR301 UN4213
R312 47K
R313 47K
R315 47K
IC301 μPD75217GF-654-3BE AHX OPP3
VPT SI
SYS RDY
VPT RDY
X1
X2
Vss
XT1
XT2
RESET OUT
RESET
REMOCON
P.DOWN
IMS CLK
C304 0.01
C305 0.01
D302
JS303
JS304
JS314
JS313
JS316
JS317
JS318
JS312
JS315
JS301
JS302
JS319
JS320
JS321
JS322
R330 47K
R329 47K
R328 47K
R327 47K
R326 47K
R325 47K
R324 47K
R323 47K
R322 47K
R331 10K
R332 10K
R318 39K
R333 10K
R306 47K
JS323
JS306
D301
IC302 XC61AC3002TH
R316 10K
C306 0.01
C307 100/6.3
R317 10
TR303 DTA115T
TR304 UN4117
TR302 UN4210
D305
D304 MTZJ9.1B
D306 MTZJ4.3B
R321 4.7K
R320 220
C309 100/6.3
C308 0.01
R319 47K
C310
D307
L301
D303 MTZJ4.7B

▬▬▬ B (POWER SUPPLY) LINE

— — — CAPSTAN MOTOR PHASE CONTROL LINE

——— CAPSTAN MOTOR SPEED CONTROL LINE

- - - - DRUM MOTOR PHASE CONTROL LINE

——— DRUM MOTOR SPEED CONTROL LINE

— - — AUDIO IN SIGNAL LINE

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/10W OR 1/4W (J)
ALL CAPACITORS IN μF (P=PF) (J)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
[D] IS ELECTRIC DOUBLE LAYER CAPACITOR
ALL DIODES ARE 1SS131
ALL INDUCTORS IN μH (K)

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE SPEED: SP)

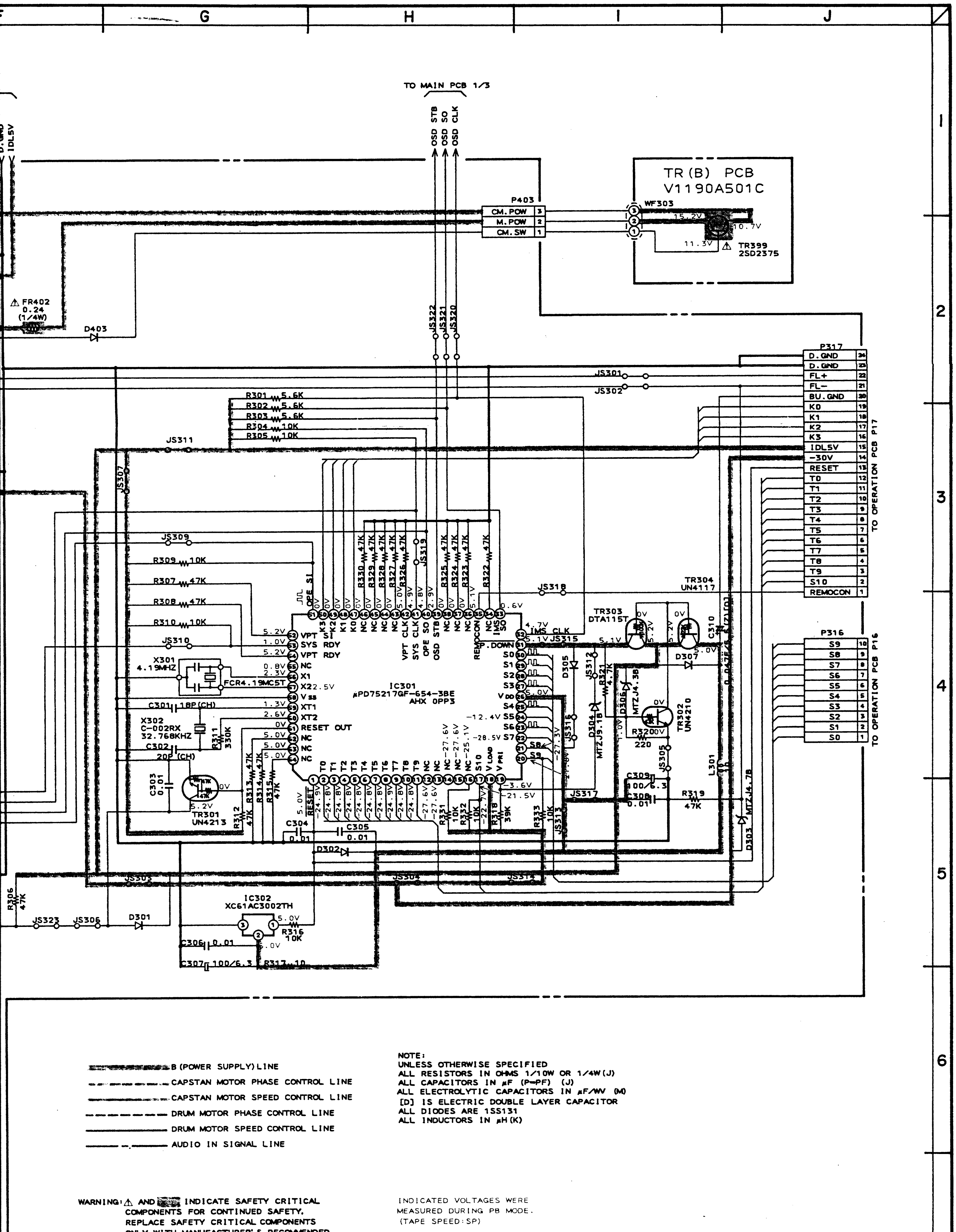
MAIN 3/3
(SERVO/SYSCO
SCHEMATIC D

No.18-4 V1

REPLACED, THE FOLLOWING SHOULD BE PERFORMED TO
NCE. REFER TO THE "INFORMATION" SECTION IN THE
OR OPERATOR'S MANUAL FOR 5.

T

ION (1F) CHECK


G
H
I
J
1
2
3
4
5
D.GND
IDL5V
TO MAIN PCB 1/3
OSD STB
OSD SO
OSD CLK
TR (B) PCB
V1190A501C
WF303
15.2V
10.7V
11.3V
TR399
2SD2375
P403
CM.POW
M.POW
CM.SW
FR402
0.24
(1/4W)
D403
JS322
JS321
JS320
P317
D.GND
D.GND
FL+
FL-
BU.GND
K0
K1
K2
K3
IDL5V
-30V
RESET
T0
T1
T2
T3
T4
T5
T6
T7
T8
T9
S10
REMOCON
TO OPERATION PCB P17
JS301
JS302
R301 5.6K
R302 5.6K
R303 5.6K
R304 10K
R305 10K
JS311
JS307
JS309
R309 10K
R307 47K
R308 47K
R310 10K
JS310
X301
4.19MHZ
FCR4.19MC5T
C301 18P(CH)
X302
C-002RX
32.768KHZ
C302
20P (CH)
R311
330K
C303
0.01
TR301
UN4213
R312
47K
R313
R314
R315
47K
C304
0.01
C305
0.01
D302
IC301
µPD75217GF-654-3BE
AHX 0PP3
VPT SI
SYS RDY
VPT RDY
NC
X1
X2
Vss
XT1
XT2
RESET OUT
OPE SI
IMS CLK
P.DOWN
S0
S1
S2
S3
VDD
S4
S5
S6
S7
S8
S9
JS319
R330
R329
R328
R327
R326
R325
R324
R323
R322
47K
JS318
TR303
DTA115T
TR304
UN4117
JS315
JS312
D305
R321
4.7K
D306
MTZJ4.3B
D304
MTZJ9.1B
JS316
TR302
UN4210
R320
220
D307
C310
0.047F/5.5V(D)
L301
C309
100/6.3
C308
0.01
R319
47K
D303
MTZJ4.7B
JS305
JS317
JS313
R331
R332
R318
39K
R333
10K
P316
S9
S8
S7
S6
S5
S4
S3
S2
S1
S0
TO OPERATION PCB P16
JS303
JS304
JS314
R306
47K
JS323
JS306
D301
IC302
XC61AC3002TH
R316
10K
C306 0.01
C307 100/6.3
R317 10
5.0V

B (POWER SUPPLY) LINE
CAPSTAN MOTOR PHASE CONTROL LINE
CAPSTAN MOTOR SPEED CONTROL LINE
DRUM MOTOR PHASE CONTROL LINE
DRUM MOTOR SPEED CONTROL LINE
AUDIO IN SIGNAL LINE

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/10W OR 1/4W(J)
ALL CAPACITORS IN µF (P=PF) (J)
ALL ELECTROLYTIC CAPACITORS IN µF/WV (M)
[D] IS ELECTRIC DOUBLE LAYER CAPACITOR
ALL DIODES ARE 1SS131
ALL INDUCTORS IN µH(K)

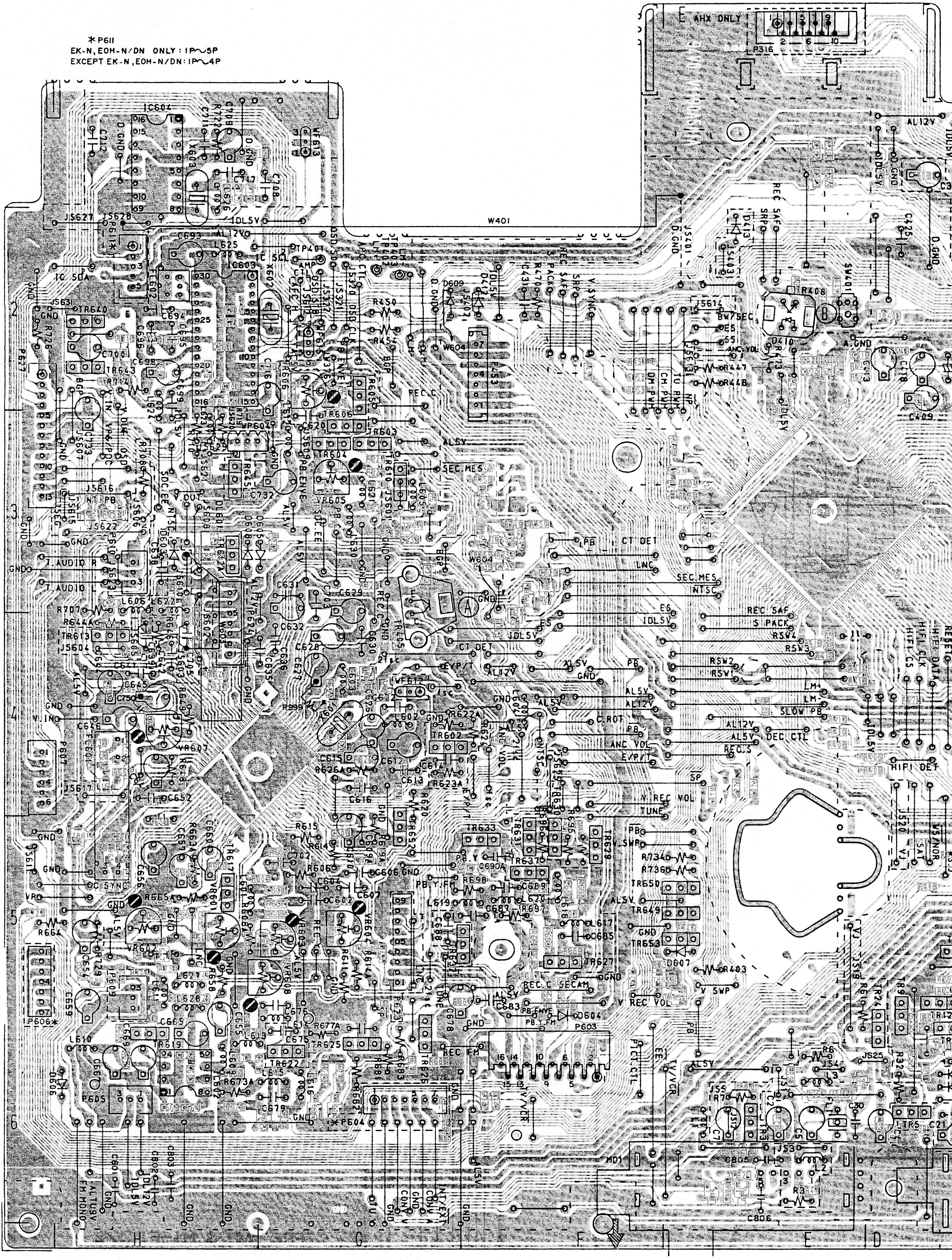
WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE SPEED:SP)

MAIN 3/3
(SERVO/SYSCON BLK)
SCHEMATIC DIAGRAM
No.18-4 V121404M
A1

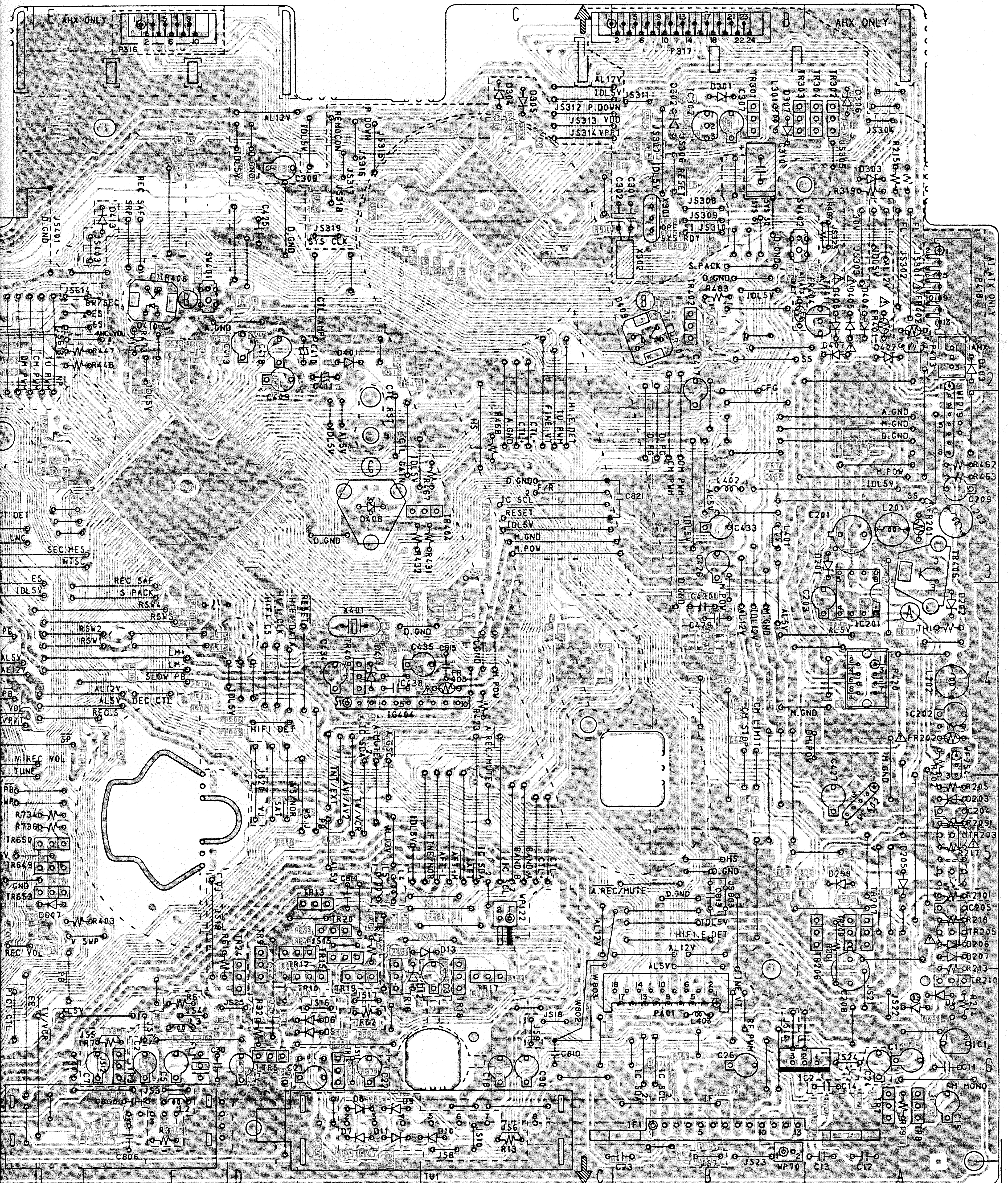
*P611
EK-N, EOH-N/DN ONLY : 1P～5P
EXCEPT EK-N, EOH-N/DN : 1P～4P


AHX ONLY
P316
W401
IC604
IC603
IC SDA
IC SCL
JS627
JS628
P611
P627
P607
P606
P605
P604
P603
TR640
TR643
TR613
TR604
TR606
TR602
TR633
TR637
TR649
TR650
TR653
TR622
VR605
VR607
VR601
VR603
VR602
VR604
WF613
WF612
W604
D609
D607
D604
D606
D413
R408
SW401
AL12V
IDL5V
AL5V
D.GND
A.GND
GND
T.AUDIO R
T.AUDIO L
V.IN
PB
CT DET
LNC
SEC.MES
NTSC
ES
REC SAF
S.PACK
RSW4
RSW3
RSW2
RSW1
LM+
LM-
SLOW PB
C.ROT
ANC VOL
E.V.P/T
AL12V
AL5V
DEC CTL
REC.S
SP
V.REC VOL
TUNE
SWP
REC.C SECAM
PB.ENVE
PB.Y.FM
REC FM
HIFI DET
HIFI CS
HIFI CLK
HIFI DATA
MD1
C805
C806
FM MONO
ALT19V
A
B
C
D
E
F
G
H
1
2
3
4
5
6

*P606
EA-D ONLY : 3P～5P
EXCEPT EA-D : 2P～5P

*P604 1P～5P

MAIN PCB V1190A501A(J1)


AHX ONLY
P316
P317
AHX ONLY
A1,A1X ONLY
P418
IC301
IC601
IC404
IC201
IC1
IC2
P401
P420
TU1
IF1
WP70
WP122
X401
X301
X302
A
B
C
D
E

MAIN PCB V1190A501A(J1)

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

PRINC

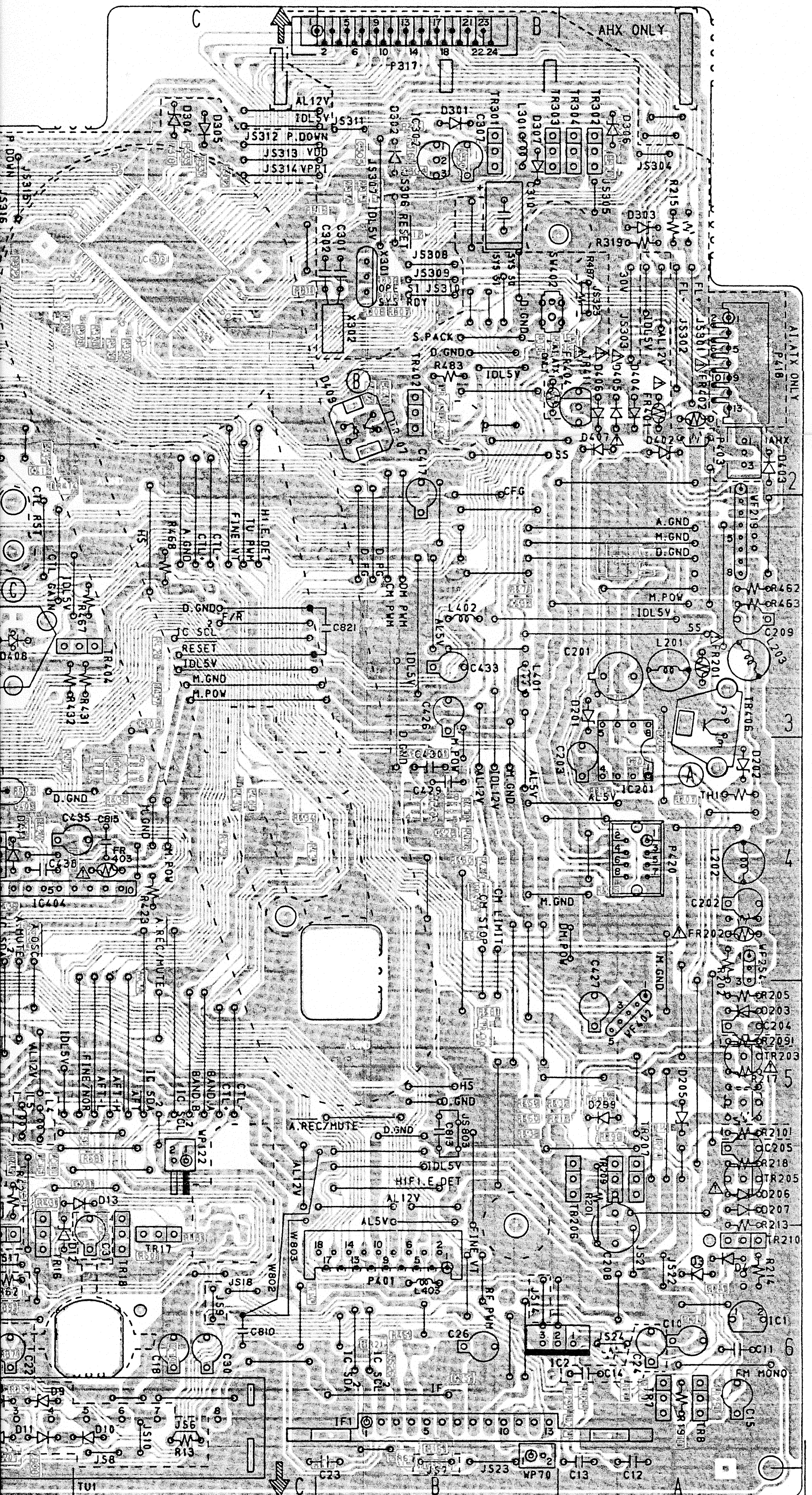
ICs
IC2 ....
IC201
IC301
IC302
IC401
IC402
IC403
IC404
IC601
IC602
IC603
IC604

WF &
WF219
WF254
WP122
WP402

CONN
P316..
P317..
P401..
P403..
P420..
P453..
P603..
P604..
P605..
P606..
P607..
P609..
P610..
P611..
P624..
P627..

TRAN
TR1 .
TR2 .
TR3 .
TR4 .
TR6 .
TR7 .
TR8 .
TR9 .
TR10
TR11
TR12
TR13
TR14
TR15
TR16
TR17
TR18
TR19
TR20
TR21
TR201
TR203
TR205
TR206
TR207
TR209
TR210
TR299
TR301

SING
TRAN


C
B
A
AHX ONLY
P317
AT/ATX ONLY
AL12V
IDL5V
JS311
JS312 P.DOWN
JS313 VDD
JS314 VPP1
P.DOWN
D301
D303
D304
D305
D306
JS304
R215
R319
JS308
JS309
S1 JS310
X301
X302
SYS RDY
RESET
S.PACK
D.GND
TR402
R483
IDL5V
D409
D402
D407
SS
CFG
A.GND
M.GND
D.GND
M.POW
IDL5V
R462
R463
C209
C201
L201
FR201
TR406
D201
D202
IC201
C203
AL5V
THI
P420
L202
C202
FR202
WF254
R205
D203
C204
R209
TR203
D205
D299
R210
C205
R218
TR205
D206
D207
R213
TR210
R214
IC1
C11
FM MONO
C15
L402
C433
L401
C426
C430
C429
C427
WF402
CM STOP
CM LIMIT
M.GND
DM.POW
H.S
D.GND
A.REC/MUTE
D.GND
IDL5V
HIFI.E.DET
AL12V
AL5V
W803
W802
P401
L403
C810
RF.PWM
JS14
JS21
C26
C208
C10
C14
IC2
IF
IF1
C23
C13
C12
WP70
JS23
JS22
R19
TR7
TR8
TU1
R13
JS6
JS8
JS10
D9
D10
D11
C18
C30
C22
TR16
TR17
TR18
D13
JS18
JS19
WP122
IC404
C435
C815
C438
R468
R423
TR404
R431
R432
D408
C821
D.GND
F/R
IC SCL
RESET
IDL5V
M.GND
M.POW
CTL
FINE/NOR
AFT-H
AFT-L
IC SDA
IC SCL
BAND B
BAND A
IDL5V
AL12V
A.REC/MUTE
HI/E.DET
TU PWM
FINE/VT
A.GND
CTL
D.FG
D.PG
CM PWM
DM PWM
D.GND
C417
WF219
1
2
3
4
5
6

PRINCIPAL PARTS LOCATION

ICs

IC2	A,B6
IC201	A4
IC301	C2
IC302	B2
IC401	E3
IC402	C4
IC403	B4
IC404	C,D4
IC601	G,H4
IC602	H6
IC603	H2
IC604	H2

WF & WPs

WF219	A3
WF254	A4
WP122	C5
WP402	A5

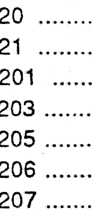
CONNECTORs

P316	E2
P317	B2
P401	B6
P403	A2
P420	A4
P453	F2
P603	F6
P604	G6
P605	H6
P606	H5
P607	H4
P609	H5
P610	H3
P611	H2
P624	H4
P627	H2,3

TRANSISTORs

TR1	E6
TR2	E6
TR3	E6
TR4	E6
TR6	B6
TR7	A6
TR8	A6
TR9	D5,6
TR10	D6
TR11	D6
TR12	D5
TR13	D5
TR14	D6
TR15	D5
TR16	D6
TR17	C6
TR18	C6
TR19	D6
TR20	D5
TR21	B6
TR201	A3
TR203	A5
TR205	A5
TR206	A5
TR207	A5
TR209	A5
TR210	A6
TR299	A5
TR301	B2
TR302	A2
TR303	B2
TR304	A2
TR401	D2
TR402	B2
TR403	B4
TR404	C,D4
TR405	G3,4
TR406	A3
TR407	B2
TR408	E2
TR409	D4
TR410	B5
TR411	A2
TR412	B2
TR413	B2
TR414	D2
TR601	G5
TR603	G3
TR604	G3
TR608	G4
TR609	F3,4
TR610	G3
TR611	G3
TR612	H3
TR614	H5
TR615	H3
TR616	H4
TR617	H5
TR618	F3
TR619	H6
TR620	H5
TR621	G4
TR622	G6
TR623	G6
TR624	G6
TR625	G6
TR626	G6
TR627	F5
TR628	F5
TR629	F5
TR630	F5
TR631	F5
TR632	F5
TR633	F5
TR634	F3
TR635	F5
TR636	G6
TR637	F5
TR639	G5
TR640	H2
TR642	H2
TR643	H2
TR644	H2
TR647	H5
TR648	F5
TR649	E5
TR650	E5
TR651	H5
TR652	G5
TR653	E5
TR654	E5
TR655	F3
TR657	F3
TR658	F3

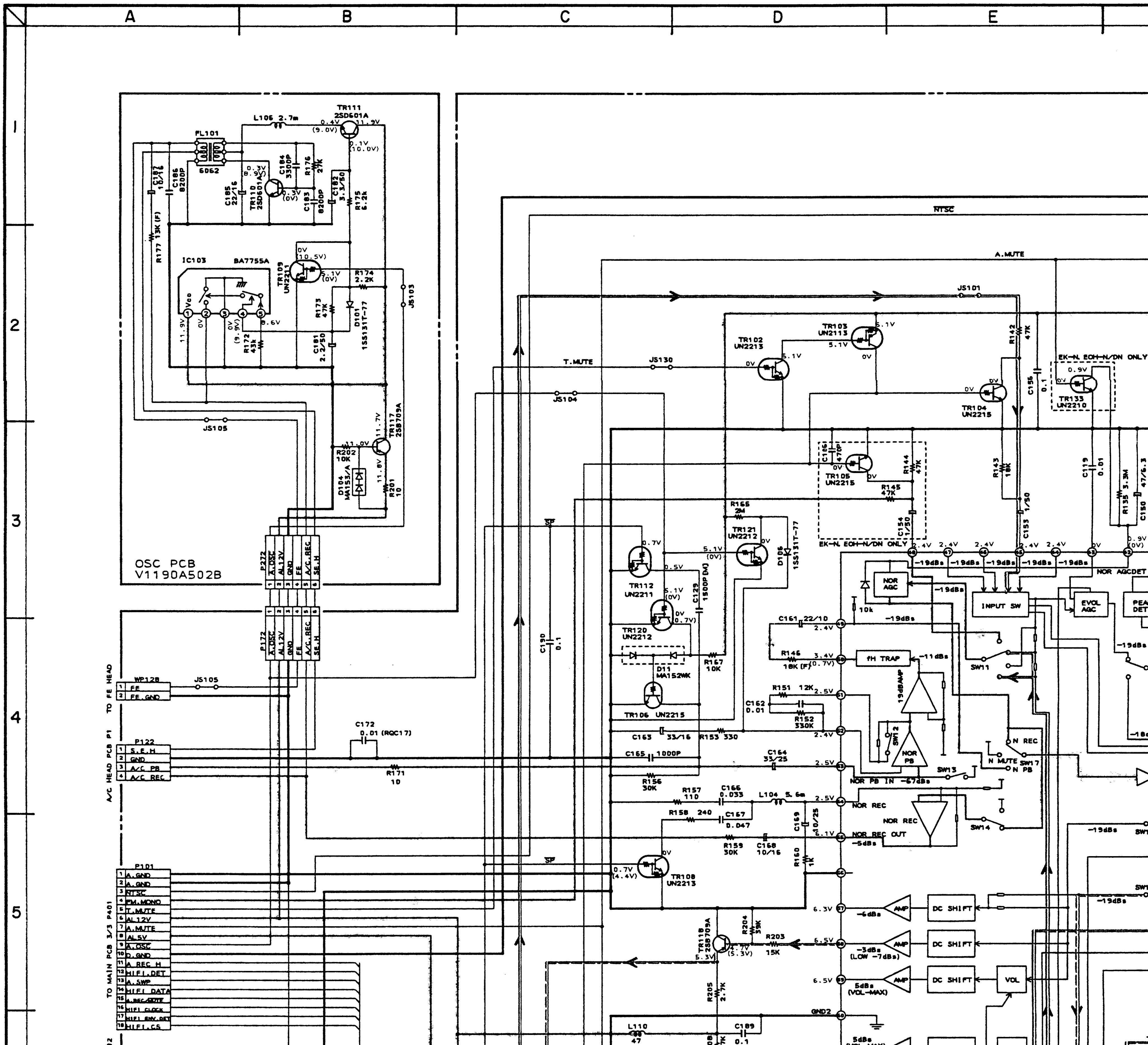
SINGLE CHIP
TRANSISTOR

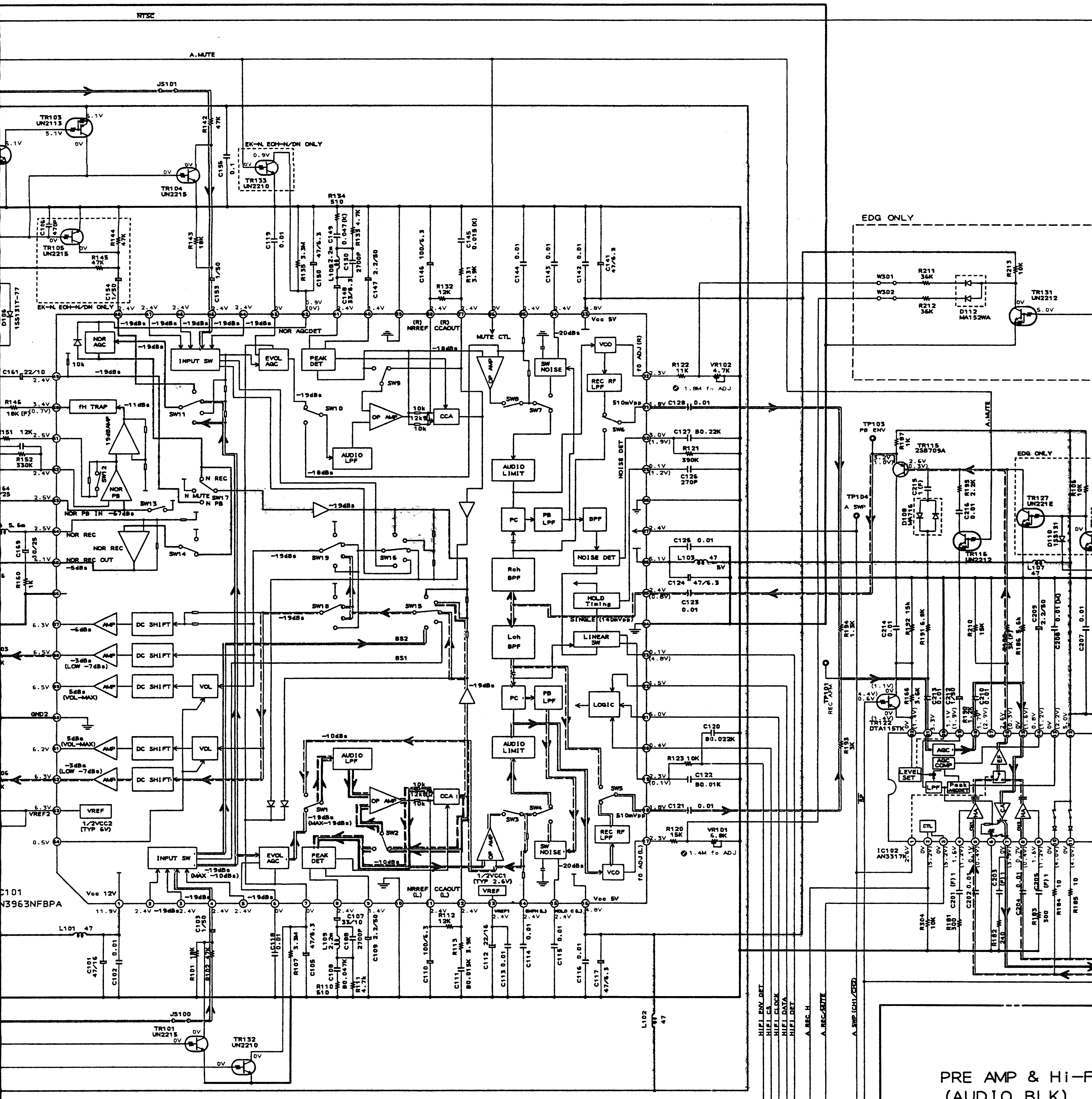


NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL.
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


A
B
C
D
E
1
2
3
4
5
6
7
8
OSC PCB
V1190A502B
PRE AMP & Hi-Fi PCB V1190A502A
TR111
2SD601A
L105 2.7m
FL101
6062
C186
8200P
C185
22/16
TR110
2SD601A
C184
3300P
C183
8200P
R176
27K
C182
3.3/50
R175
6.2k
R177 13K (F)
IC103
BA7755A
TR109
UN2211
R174
2.2K
R173
47K
D101
1SS131T-77
JS103
C181
2.2/50
R172
43k
TR117
2SB709A
R202
10K
D104
MA153/A
R201
10
JS105
P272
P172
A.OSC
AL12V
GND
FE
A/C.REC
SE.H
TO FE HEAD
WP128
FE
FE.GND
JS105
TO A/C HEAD PCB P1
P122
S.E.H
GND
A/C PB
A/C REC
C172
0.01 (RQC17)
R171
10
TO MAIN PCB 3/3 P401
P101
A.GND
A.GND
NTSC
FM.MONO
T.MUTE
AL12V
A.MUTE
AL5V
A.OSC
D.GND
A.REC H
HIFI.DET
A.SWP
HIFI DATA
A.REC MUTE
HIFI CLOCK
HIFI ENV.DET
HIFI.CS
C302
0.1
C301
0.1
TO MAIN PCB 3/3 WF402
P102
VS
CTL
PG
M.GND
FG
TO DRUM MOTOR
P129
FG
M.GND
M.GND
PG
CTL
VS
R301
10K
R302 10K
R303 27K
TO IN/OUT(C)PCB P337
P131
A.L.IN
A.GND
A.L.OUT
A.R.OUT
A.GND
A.R.IN
NTSC
A.MUTE
T.MUTE
JS130
JS104
JS101
TR102
UN2213
TR103
UN2113
R142
47K
C155
0.1
EK-N, EOH-N/DN ONLY
TR133
UN2210
TR104
UN2215
C161
470P
TR105
UN2215
R144
47K
R145
47K
C154
1/50
R143
18K
C153
1/50
C119
0.01
R135
3.3M
C150
47/6.3
SP
C130
0.1
TR112
UN2211
R165
2M
TR121
UN2212
D105
1SS131T-77
C129
1800P (M)
TR120
UN2212
D11
MA152WK
R167
10K
TR106 UN2215
C161 22/10
R146
18K (F)
R151 12K
C162
0.01
R152
330K
C163 33/16
R153 330
C165 1000P
C164
33/25
R156
30K
R157
110
C166
0.033
L104 5.6m
R158 240
C167
0.047
R159
30K
C168
10/16
C169
10/25
R160
1K
TR108
UN2213
TR118
2SB709A
R204
39K
R203
15K
R205
2.7K
GND2
L110
47
C189
0.1
R208
2.7K
TR119
2SB709A
R206
15K
R207
39K
C170 0.01
C171 10/25
VREF2
VREF
1/2VCC2
(TYP 6V)
IC101
AN3963NFBPA
Vcc 12V
L101 47
C101
47/16
C102
0.01
C103
1/50
R101
18K
R102
47K
C118
0.01
R107
3.3M
C105
47/6.3
JS100
TR101
UN2215
TR132
UN2210
NOR AGC
INPUT SW
EVOL AGC
NOR AGCDET
fH TRAP
19dBAMP
NOR PB
SW11
SW12
SW13
SW14
SW17
N REC
N MUTE
N PB
NOR PB IN -67dBs
NOR REC
NOR REC OUT
-5dBs
-19dBs
-11dBs
-6dBs
-3dBs
(LOW -7dBs)
5dBs
(VOL-MAX)
AMP
DC SHIFT
VOL
INPUT SW
EVOL AGC
(MAX -10dBs)

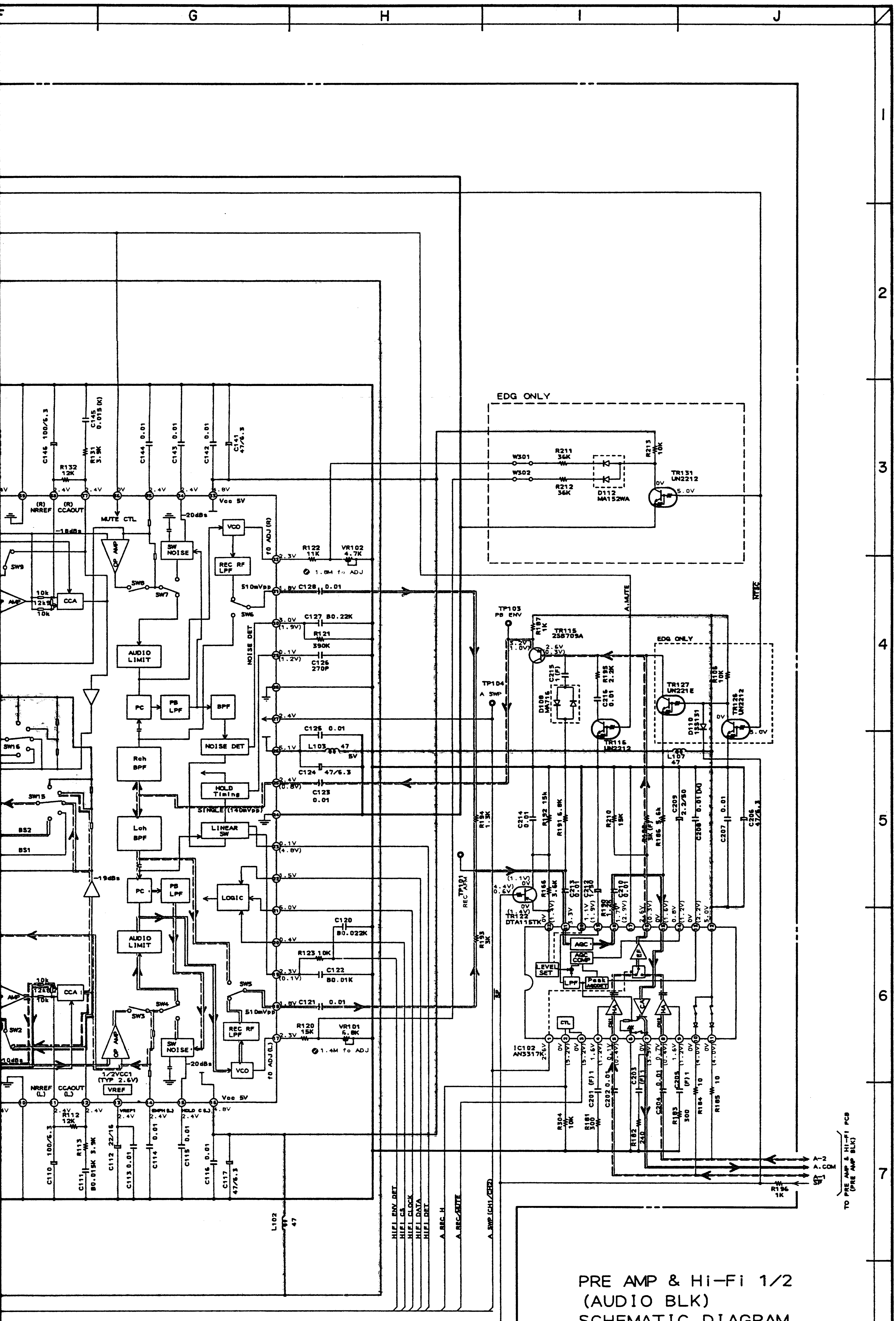

NTSC
A.MUTE
JS101
TR103
UN2113
TR104
UN2215
TR105
UN2215
EK-N, EOH-N/DN ONLY
TR133
UN2210
R134
510
INPUT SW
NOR AGC
NOR AGCDET
EVOL AGC
PEAK DET
OP AMP
CCA
AUDIO LPF
AUDIO LIMIT
SW NOISE
MUTE CTL
VCO
REC RF LPF
NOISE DET
PC
PB LPF
BPF
Rch BPF
Lch BPF
HOLD Timing
LINEAR SW
LOGIC
fH TRAP
NOR PB
NOR REC
NOR REC OUT
DC SHIFT
AMP
VOL
VREF
1/2VCC2
1/2VCC1
IC101
AN3963NFBPA
Vcc 12V
Vcc 5V
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
SW10
SW11
SW13
SW14
SW15
SW16
SW17
SW18
SW19
BS1
BS2
GND2
VREF2
NRREF
CCAOUT
fo ADJ (R)
fo ADJ (L)
VR101
VR102
R122
R120
L101
L102
L103
JS100
TR101
UN2215
TR132
UN2210
EDG ONLY
W301
W302
R211
R212
D112
MA152WA
TR131
UN2212
TP103
PB ENV
TP104
A SWP
TR115
2SB709A
TR116
UN2212
TR127
UN221E
TP101
REC AFM
TR122
DTA115TK
IC102
AN3317K
LEVEL SET
AGC
AGC COMP
LPF
Peak
CTL
HIFI ENV DET
HIFI CS
HIFI CLOCK
HIFI DATA
HIFI DET
A.REC H
A.REC/MUTE
A.SWP (CH1/CH2)
SP

B (POWER SUPPLY) LINE
NORMAL AUDIO PB SIGNAL LINE
NORMAL AUDIO REC & E-E SIGNAL LINE
AUDIO PB SIGNAL LINE
AUDIO REC & E-E SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF
ALL CAPACITORS IN µF/WV
ALL INDUCTORS IN µH

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
( ) : REC MODE
(TAPE SPEED : SP)

PRE AMP & Hi-F
(AUDIO BLK)
SCHEMATIC DIA
No.18-5 V121


F
G
H
I
J
1
2
3
4
5
6
7
8
EDG ONLY
W301
W302
R211 36K
R212 36K
D112 MA152WA
R213 10K
TR131 UN2212
5.0V
A.MUTE
NTSC
C146 100/6.3
C145 0.015(K)
R132 12K
R131 3.9K
C144 0.01
C143 0.01
C142 0.01
C141 47/6.3
NRREF (R)
CCAOUT (R)
MUTE CTL
Vcc 5V
-20dBs
-18dBs
VCO
SW NOISE
REC RF LPF
OP AMP
CCA
SW9
SW8
SW7
SW6
510mVpp
NOISE DET
AUDIO LIMIT
PC
PB LPF
BPF
Rch BPF
Lch BPF
HOLD Timing
SINGLE (140mVpp)
LINEAR SW
LOGIC
-19dBs
SW16
SW15
BS2
BS1
SW5
SW4
SW3
SW2
R122 11K
VR102 4.7K
1.8M fo ADJ
fo ADJ (R)
C128 0.01
C127 80.22K
R121 390K
C126 270P
C125 0.01
L103 47
C124 47/6.3
C123 0.01
C120 80.022K
R123 10K
C122 80.01K
C121 0.01
R120 15K
VR101 6.8K
1.4M fo ADJ
fo ADJ (L)
1/2VCC1 (TYP 2.6V)
VREF
NRREF (L)
CCAOUT (L)
VREF1
EMPH (L)
HOLD C(L)
R112 12K
R113 3.9K
C110 100/6.3
C111 80.015K
C112 22/16
C113 0.01
C114 0.01
C115 0.01
C116 0.01
C117 47/6.3
L102 47
TP103 PB ENV
R187 1K
TR115 2SB709A
TP104 A SWP
C215 1(F)
D108 MA715
R195 2.2K
C216 0.01
TR116 UN2212
EDG ONLY
TR127 UN221E
R106 10K
TR126 UN2212
D110 1SS131
L107 47
R194 1.3K
C214 0.01
R192 15k
R191 6.8K
R210 18K
R186 5.6k
C209 2.2/50
C208 0.01(K)
C207 0.01
C206 47/6.3
TP101 REC AFM
R166 5.6K
C213 0.01
C212 1/50
R190 1.2K
C210 0.01
TR122 DTA115TK
R193 3K
LEVEL SET
AGC
AGC COMP
LPF
Peak
EF
CTL
IC102 AN3317K
C201 (F)
C202 0.01
C203 (F)
C204 0.01
C205 (F)
R304 10K
R181 300
R182 240
R183 300
R184 10
R185 10
R196 1K
A-2
A.COM
A-1
TO PRE AMP & Hi-Fi PCB (PRE AMP BLK)
HIFI ENV DET
HIFI CS
HIFI CLOCK
HIFI DATA
HIFI DET
A.REC H
A.REC/MUTE
A.SWP (CH1/CH2)
SP

PRE AMP & Hi-Fi 1/2
(AUDIO BLK)
SCHEMATIC DIAGRAM

No.18-5 V121405M
A0

B (POWER SUPPLY) LINE
NORMAL AUDIO PB SIGNAL LINE
NORMAL AUDIO REC & E-E SIGNAL LINE
AUDIO PB SIGNAL LINE
AUDIO REC & E-E SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF
ALL CAPACITORS IN µF/WV
ALL INDUCTORS IN µH

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
( ) : REC MODE
(TAPE SPEED : SP)

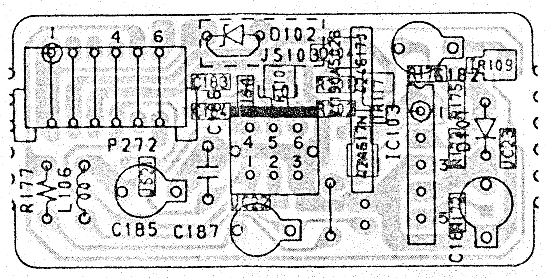
PRINCIPAL PARTS LOCATION

ICs	
IC1	E1,2
IC101	B,C2
IC102	D1

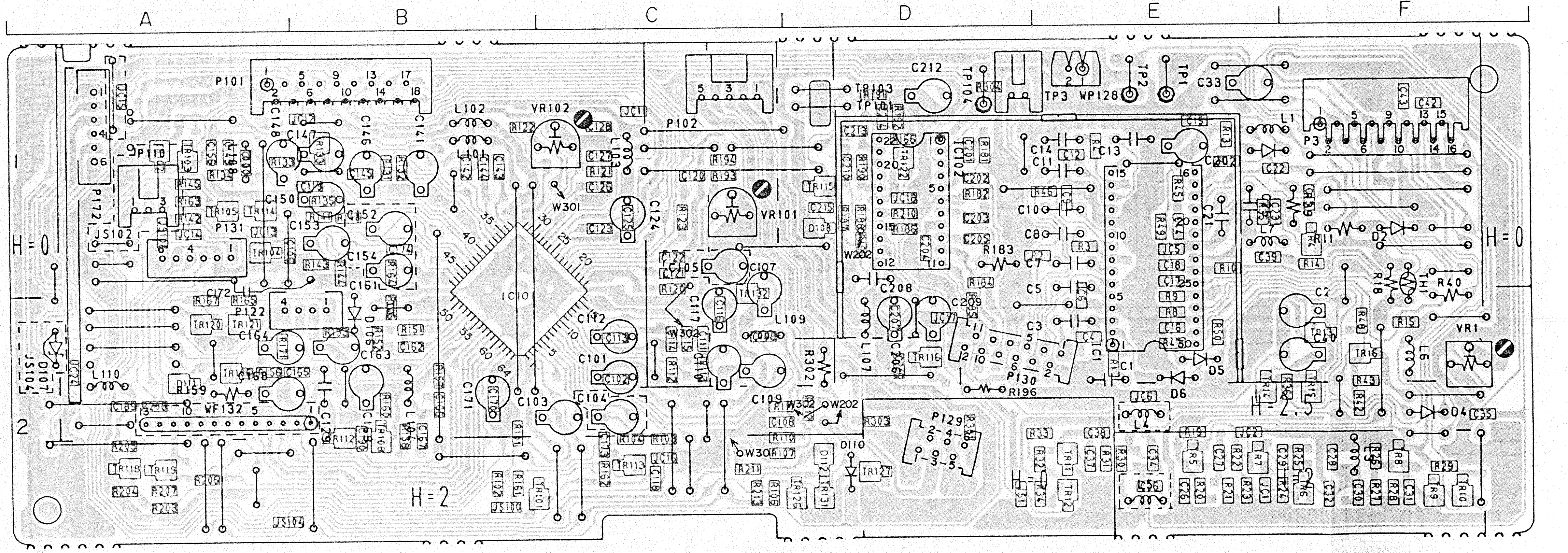
CONNECTORs	
P3	F1
P101	B1
P102	C1
P122	A,B2
P129	D2
P130	D,E2
P131	A1,2
P172	A1

WP	
WP128	E1

TRANSISTORs	
TR4	F1
TR5	E2
TR6	F2
TR7	E2
TR8	F2
TR9	F2
TR10	F2
TR13	F2
TR14	E2
TR15	F2
TR16	F2
TR101	B2
TR102	A1
TR103	A1
TR104	A1
TR105	A1
TR106	A2
TR108	B2
TR112	B2
TR115	D1
TR116	D2
TR118	A2
TR119	A2
TR120	A2
TR121	A2
TR122	D1
TR126	D2
TR127	D2
TR131	D2
TR132	C2
TR133	B1


P272
IC103
D102
JS103
C185
C187
R109

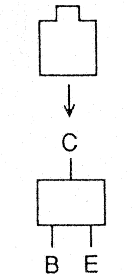
OSC PCB V1190A502B(J4)

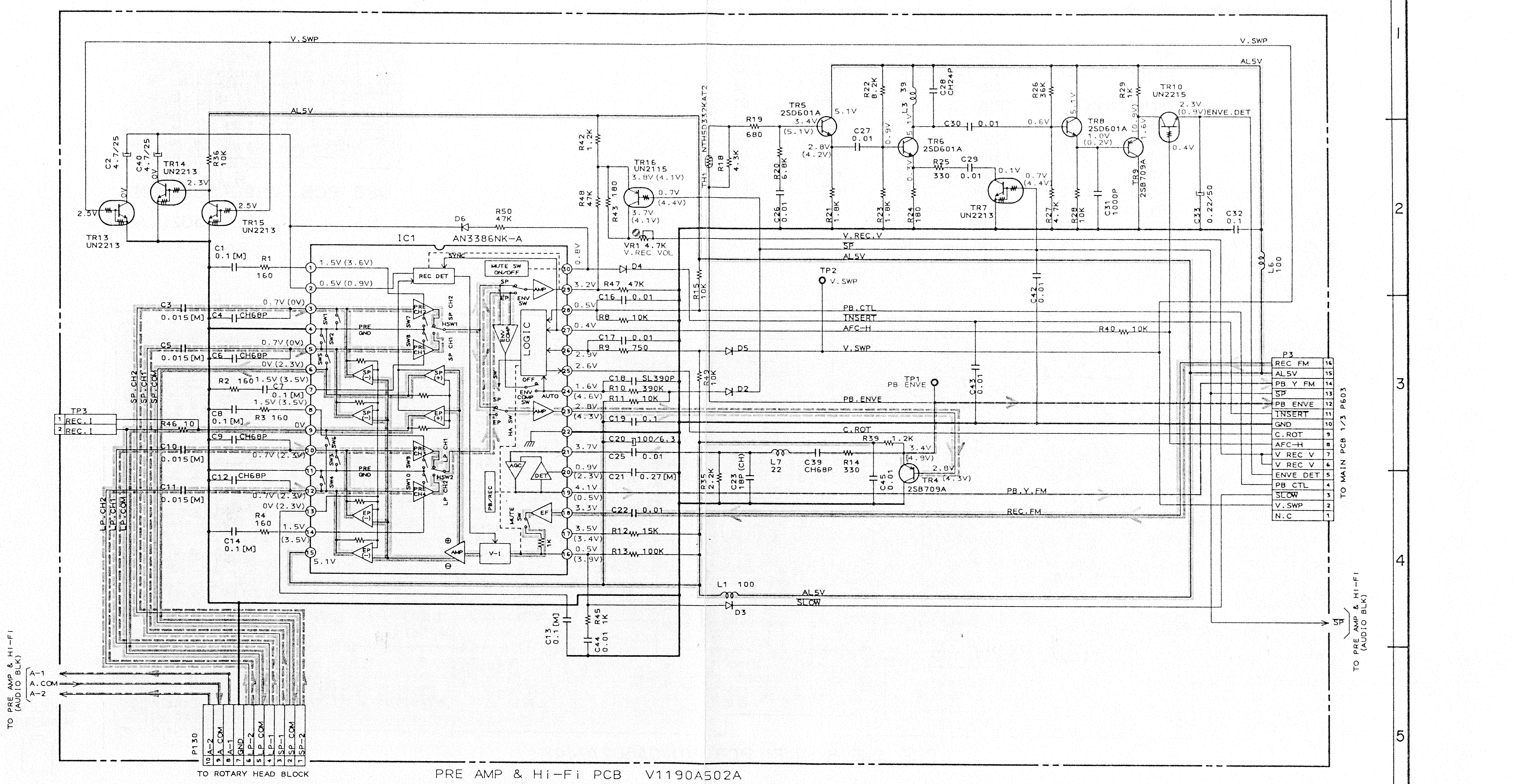

A
B
C
D
E
F
1
2
H=0
H=2
IC101
P101
P102
P3
TP3
WP128
TP1
TP2
VR101
VR102
VR1
P122
P129
P130
P131
P172
WF132

PRE AMP & Hi-Fi PCB V1190A502A(J4)

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

SINGLE CHIP
TRANSISTOR




V.SWP
AL5V
C2 4.7/25
C40 4.7/25
TR14 UN2213
R36 10K
TR13 UN2213
TR15 UN2213
2.5V
2.3V
0V
D6
R50 47K
IC1
AN3386NK-A
C1 0.1 [M]
R1 160
REC DET
MUTE SW ON/OFF
ENV SW
LOGIC
AGC
DET
AMP
V-I
PB/REC
PRE GND
HSW1
HSW2
C3 0.015 [M]
C4 CH68P
C5 0.015 [M]
C6 CH68P
R2 160
C7 0.1 [M]
C8 0.1 [M]
R3 160
R46 10
C9 CH68P
C10 0.015 [M]
C12 CH68P
C11 0.015 [M]
R4 160
C14 0.1 [M]
TP3
REC.1
SP.CH2
SP.CH1
SP.COM
LP.CH2
LP.CH1
LP.COM
R42 1.2K
R48 47K
R43 180
TR16 UN2115
3.8V (4.1V)
3.7V (4.1V)
0.7V (4.4V)
VR1 4.7K V.REC VOL
NTH5D332KAT2
TH1
R18 4.3K
R19 680
R47 47K
C16 0.01
R8 10K
C17 0.01
R9 750
C18 SL390P
R10 390K
R11 10K
C19 0.1
C20 100/6.3
C25 0.01
C21 0.27 [M]
C22 0.01
R12 15K
R13 100K
D4
D5
D2
D3
R15 10K
R42 10K
TP2 V.SWP
TP1 PB ENVE
TR5 2SD601A
R22 8.2K
L3 39
C28 CH24P
C27 0.01
TR6 2SD601A
R25 330
C29 0.01
TR7 UN2213
R20 6.8K
C26 0.01
R21 1.8K
R23 1.8K
R24 180
C30 0.01
R26 36K
TR8 2SD601A
TR9 2SB709A
R29 1K
TR10 UN2215
ENVE.DET
R27 4.7K
R28 10K
C31 1000P
C33 0.22/50
C32 0.1
L6 100
V.REC.V
SP
PB.CTL
INSERT
AFC-H
R40 10K
C42 0.01
C43 0.01
PB.ENVE
C.ROT
R39 1.2K
R35 2.2K
C23 18P (CH)
L7 22
C39 CH68P
R14 330
C45 0.01
TR4 2SB709A
PB.Y.FM
REC.FM
L1 100
SLOW
C13 0.1 [M]
R45 1K
C44 0.01
P3
REC FM 16
AL5V 15
PB Y FM 14
SP 13
PB ENVE 12
INSERT 11
GND 10
C.ROT 9
AFC-H 8
V REC V 7
V REC V 6
ENVE DET 5
PB CTL 4
SLOW 3
V.SWP 2
N.C 1
TO MAIN PCB 1/3 P603
TO PRE AMP & Hi-Fi (AUDIO BLK)
A-1
A.COM
A-2
P130
10 A-2
9 A.COM
8 A-1
7 GND
6 LP-2
5 LP.COM
4 LP-1
3 SP-1
2 SP.COM
1 SP-2
TO ROTARY HEAD BLOCK

PRE AMP & Hi-Fi PCB V1190A502A

- ▒ B (POWER SUPPLY) LINE
- ▒ PB Y SIGNAL LINE
- ▒ REC Y SIGNAL LINE
- ▒ PB CHROMA SIGNAL LINE
- ▒ REC CHROMA SIGNAL LINE
- ▒ PB AUDIO SIGNAL LINE
- ▒ REC AUDIO SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF
ALL INDUCTORS IN μH (K)
ALL DIODES ARE 1SS131T-77

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE SPEED: SP)
( ): REC MODE

PRE AMP & Hi-Fi 2/2
(PRE AMP BLK)
SCHEMATIC DIAGRAM

No.18-6 V121406M
A2

PRINCIPAL PARTS LOCATION

ICs

IC1	E1,2
IC101	B,C2
IC102	D1

CONNECTORs

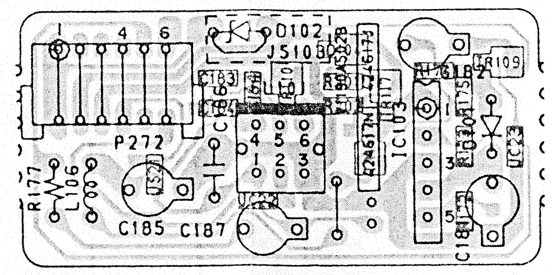
P3	F1
P101	B1
P102	C1
P122	A,B2
P129	D2
P130	D,E2
P131	A1,2
P172	A1

WP

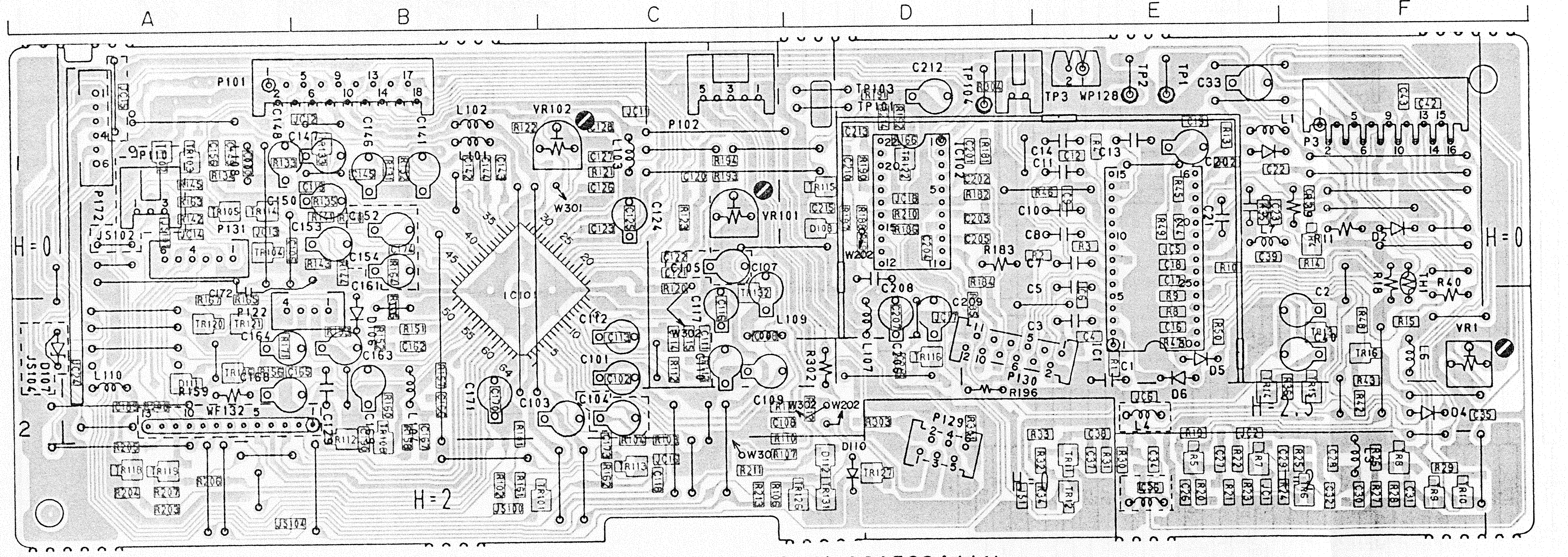
WP128	E1

TRANSISTORs

TR4	F1
TR5	E2
TR6	F2
TR7	E2
TR8	F2
TR9	F2
TR10	F2
TR13	F2
TR14	E2
TR15	F2
TR16	F2
TR101	B2
TR102	A1
TR103	A1
TR104	A1
TR105	A1
TR106	A2
TR108	B2
TR112	B2
TR115	D1
TR116	D2
TR118	A2
TR119	A2
TR120	A2
TR121	A2
TR122	D1
TR126	D2
TR127	D2
TR131	D2
TR132	C2
TR133	B1


D102
JS105
P272
IC103
R177
L106
C185
C187
R109
4
6
1 2 3
4 5 6

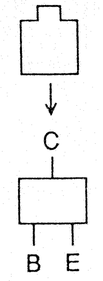
OSC PCB VII90A502B(J4)

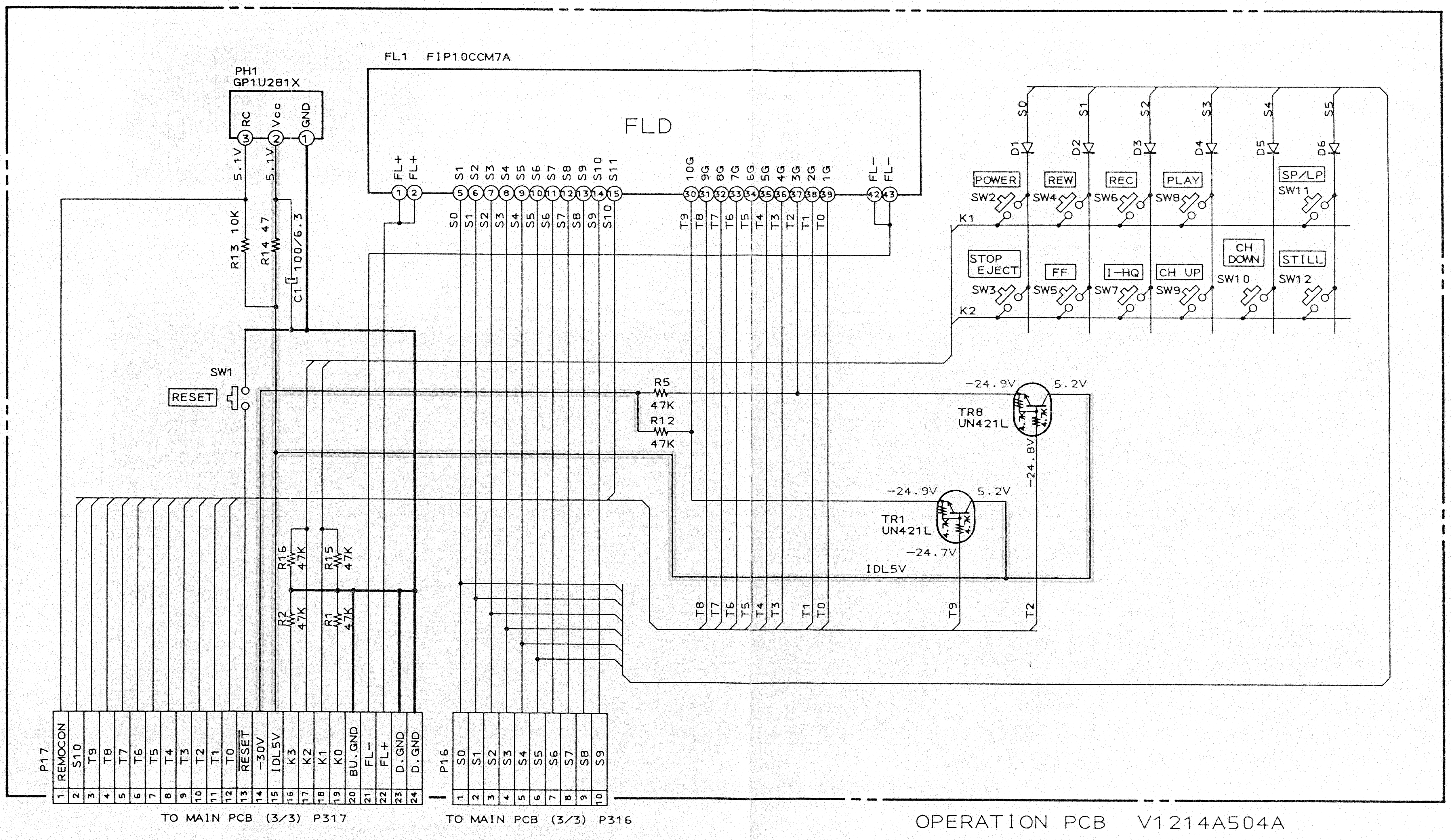

A
B
C
D
E
F
1
2
H=0
H=2
H=0
P101
P102
P3
P172
P131
P122
P129
P130
JS102
JS104
IC101
IC102
IC1
VR102
VR101
VR1
W301
W302
W202
WP132
WP128
TP1
TP2
TP3
TP101
TP103
TP104
L102
L103
L109
L110
L107
L1
C212
C33
C208
C209
D110
D4
D5
D6
H=2.5

PRE AMP & Hi-Fi PCB VII90A502A(J4)

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

SINGLE CHIP TRANSISTOR



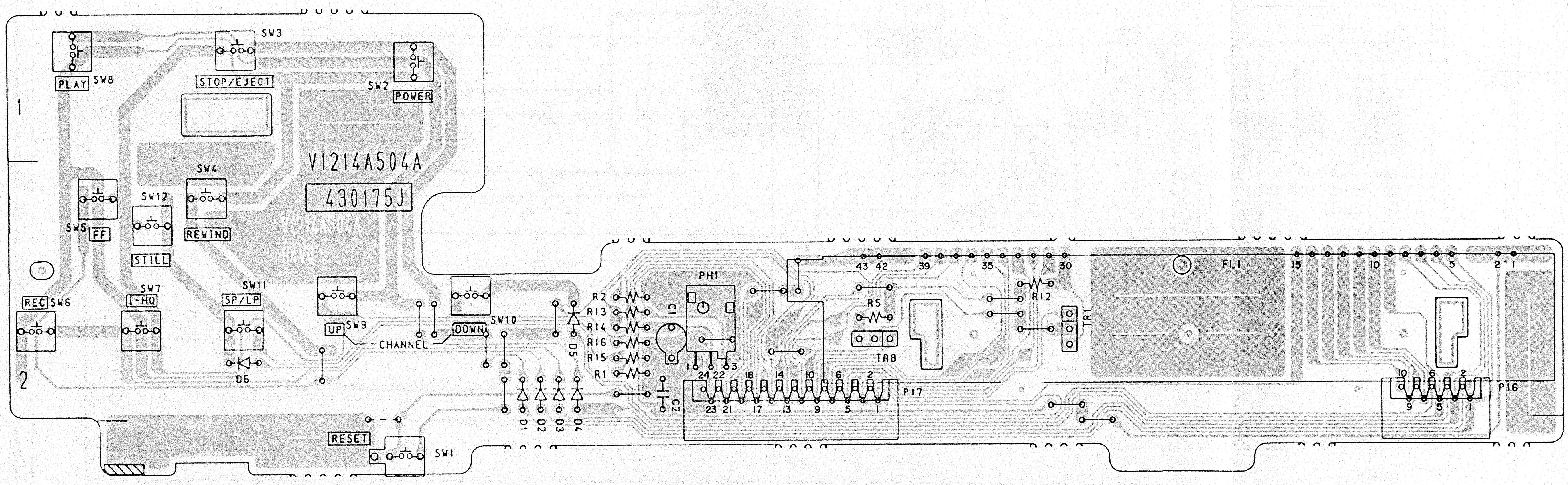

FL1 FIP10CCM7A
FLD
PH1
GP1U281X
RC
Vcc
GND
5.1V
5.1V
R13 10K
R14 47
C1 100/6.3
FL+
FL+
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11
10G 9G 8G 7G 6G 5G 4G 3G 2G 1G
FL−
FL−
S0 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10
T9 T8 T7 T6 T5 T4 T3 T2 T1 T0
S0 S1 S2 S3 S4 S5
D1 D2 D3 D4 D5 D6
POWER
SW2
REW
SW4
REC
SW6
PLAY
SW8
SP/LP
SW11
K1
STOP EJECT
SW3
FF
SW5
I−HQ
SW7
CH UP
SW9
CH DOWN
SW10
STILL
SW12
K2
SW1
RESET
R5 47K
R12 47K
−24.9V
5.2V
TR8
UN421L
−24.8V
−24.9V
5.2V
TR1
UN421L
−24.7V
IDL5V
R16 4.7K
R15 47K
R2 47K
R1 47K
T8 T7 T6 T5 T4 T3 T1 T0
T9
T2
P17
REMOCON S10 T9 T8 T7 T6 T5 T4 T3 T2 T1 T0 RESET −30V IDL5V K3 K2 K1 K0 BU.GND FL− FL+ D.GND D.GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
TO MAIN PCB (3/3) P317
P16
S0 S1 S2 S3 S4 S5 S6 S7 S8 S9
1 2 3 4 5 6 7 8 9 10
TO MAIN PCB (3/3) P316
OPERATION PCB V1214A504A

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/10W OR 1/4W(J)
ALL CAPACITORS IN μF (P=PF) (J)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
[D] IS ELECTRIC DOUBLE LAYER CAPACITOR
ALL DIODES ARE 1SS131

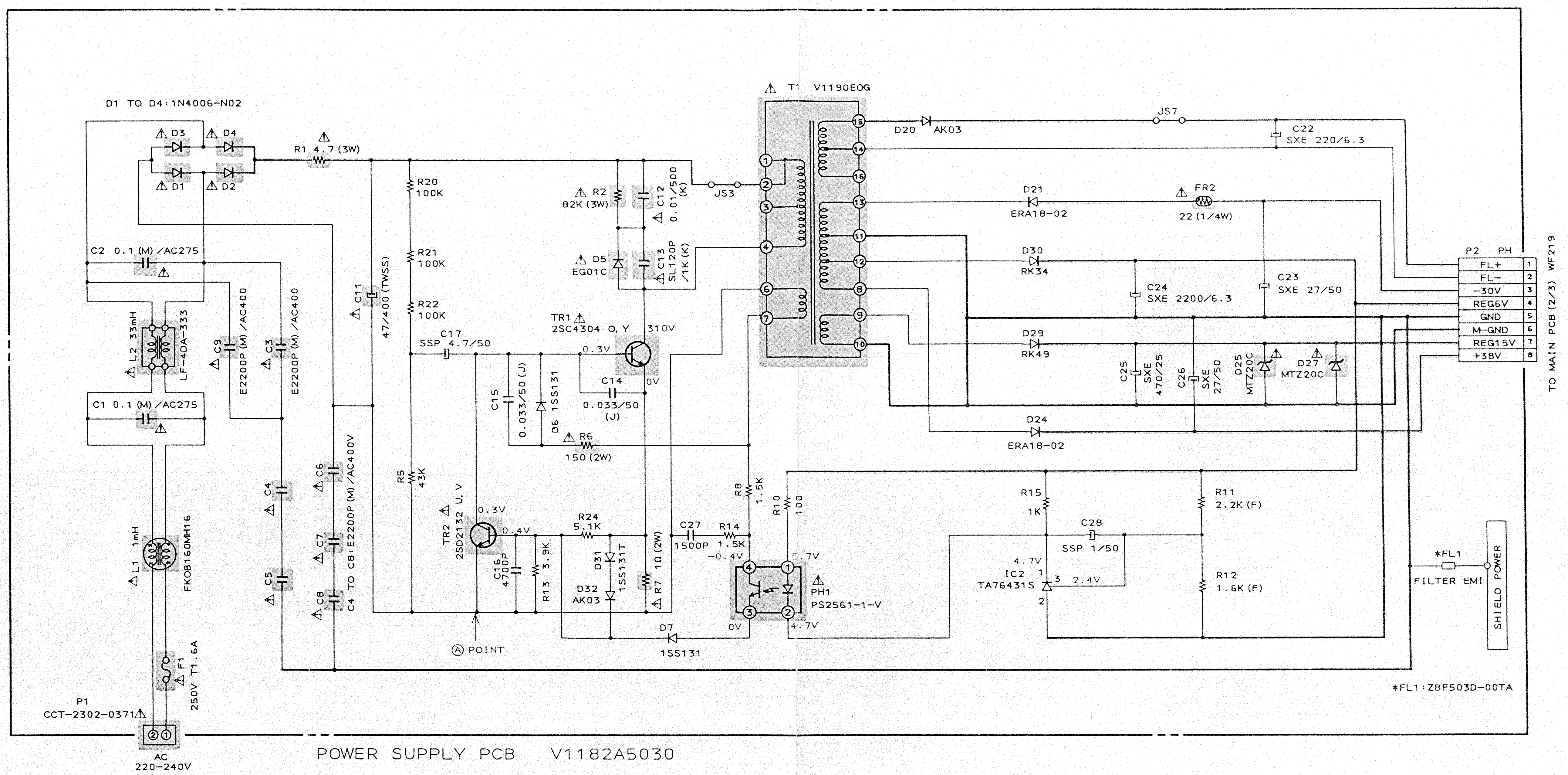
———— B (POWER SUPPLY) LINE

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE SPEED:SP)

OPERATION
SCHEMATIC DIAGRAM
No.18−7 V121407M
A3


SW8
PLAY
SW3
STOP/EJECT
SW2
POWER
1
V1214A504A
430175J
V1214A504A
94V0
SW4
REWIND
SW12
STILL
SW5
FF
SW11
SP/LP
SW7
I-HQ
REC
SW6
2
D6
UP
SW9
CHANNEL
DOWN
SW10
RESET
SW1
D5
R2
R13
R14
R16
R15
R1
D1
D2
D3
D4
C1
C2
PH1
1
2
3
24
22
18
14
10
6
2
23
21
17
13
9
5
1
P17
R5
TR8
43
42
39
35
30
R12
TR1
FL1
15
10
5
2
1
10
6
2
9
5
1
P16

OPERATION PCB V1214A504A


D1 TO D4:1N4006-N02
D3
D4
D1
D2
R1 4.7 (3W)
R20 100K
R21 100K
R22 100K
R2 82K (3W)
C12 0.01/500 (K)
D5 EG01C
C13 SL120P /1K (K)
JS3
T1 V1190EOG
C2 0.1 (M) /AC275
L2 33mH
LF-4DA-333
C9 E2200P (M) /AC400
C3 E2200P (M) /AC400
C11 47/400 (TWSS)
C17 SSP 4.7/50
TR1 2SC4304 O, Y
310V
0.3V
0V
C14 0.033/50 (J)
C15 0.033/50 (J)
D6 1SS131
R6 150 (2W)
C1 0.1 (M) /AC275
C4
C5
C6
C7
C8
C4 TO C8: E2200P (M) /AC400V
R5 43K
TR2 2SD2132 U, V
0.3V
0.4V
C16 4700P
R13 3.9K
R24 5.1K
D31 1SS131T
D32 AK03
R7 1Ω (2W)
C27 1500P
R14 1.5K
-0.4V
R8 1.5K
R10 100
5.7V
4.7V
0V
PH1 PS2561-1-V
D7 1SS131
Ⓐ POINT
L1 1mH
FKOB160MH16
F1 250V T1.6A
P1 CCT-2302-0371
AC 220-240V
D20 AK03
JS7
C22 SXE 220/6.3
D21 ERA18-02
FR2 22 (1/4W)
D30 RK34
C24 SXE 2200/6.3
C23 SXE 27/50
D29 RK49
C25 SXE 470/25
C26 SXE 27/50
D25 MTZ20C
D27 MTZ20C
D24 ERA18-02
R15 1K
R11 2.2K (F)
C28 SSP 1/50
IC2 TA76431S
4.7V
2.4V
R12 1.6K (F)
P2 PH
FL+ 1
FL- 2
-30V 3
REG6V 4
GND 5
M-GND 6
REG15V 7
+38V 8
TO MAIN PCB (2/3) WF219
*FL1
FILTER EMI
SHIELD POWER
*FL1:ZBF503D-00TA
POWER SUPPLY PCB V1182A5030

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨ , ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

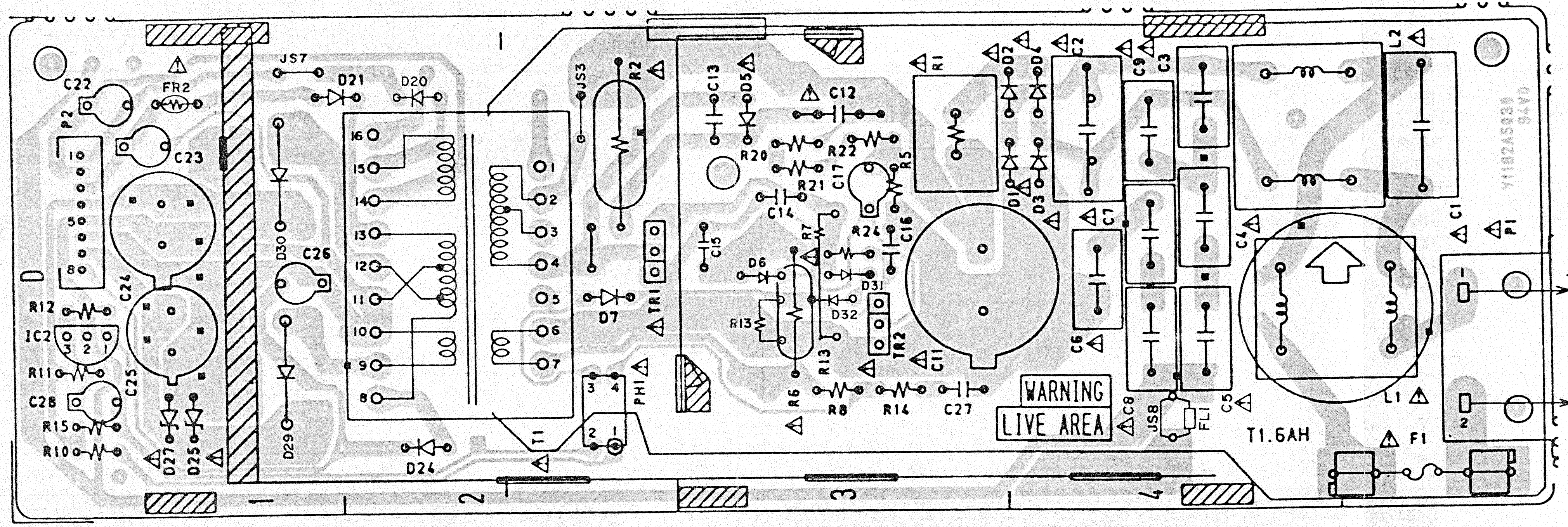
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF (P–PF) 16WV (M)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)

*INDICATED VOLTAGES WERE MEASURED DURING E-E MODE. THE DC VOLTMETER'S NEGATIVE INPUT WAS CONNECTED TO THE Ⓐ POINT WHEN THE PRIMARY SECTION WAS MEASURED.

*THE PRIMARY INPUT WAS AC 220V.

▨ : B (POWER SUPPLY) LINE

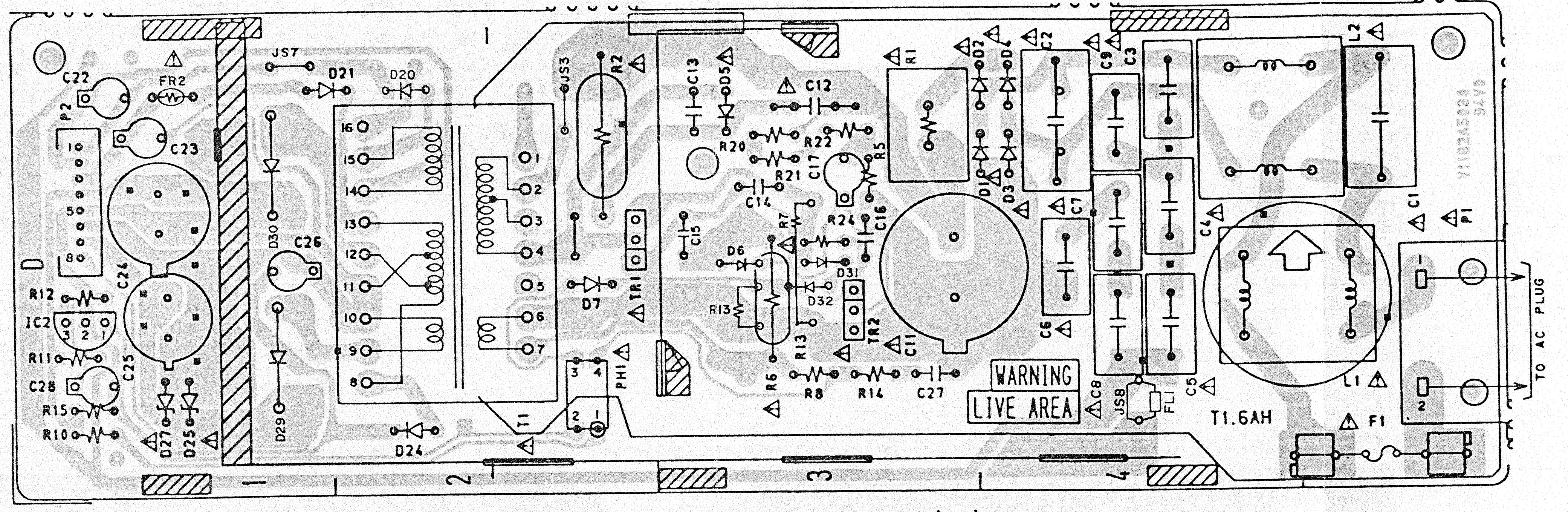
POWER SUPPLY
SCHEMATIC DIAGRAM
No.18-8 V121408M
A3


C22
FR2
P2
C23
JS7
D21
D20
R2
JS3
C13
D5
C12
R1
D2
D4
C2
C9
C3
L2
R20
R22
R21
C17
R5
C14
D1
D3
C7
C4
C1
P1
C24
C15
R7
R24
C16
D6
D31
D32
R13
TR2
C11
D30
C26
D7
TR1
C6
R12
IC2
R11
C25
C28
R15
R10
D27
D25
D29
D24
T1
PH1
R6
R8
R14
C27
WARNING
LIVE AREA
C8
JS8
FL1
C5
L1
T1.6AH
F1
TO AC PLUG
V1182A5030
94V0
1
2
3
4

POWER SUPPLY PCB V1182A5030(J1)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

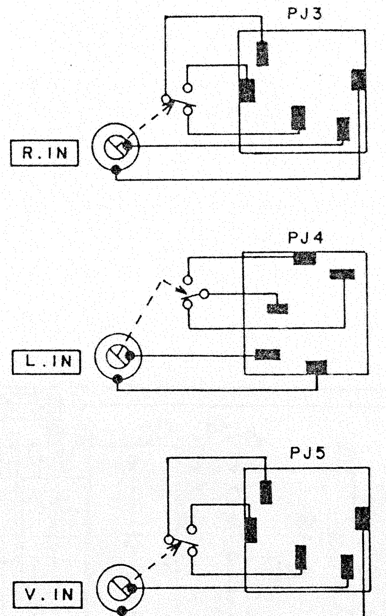
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

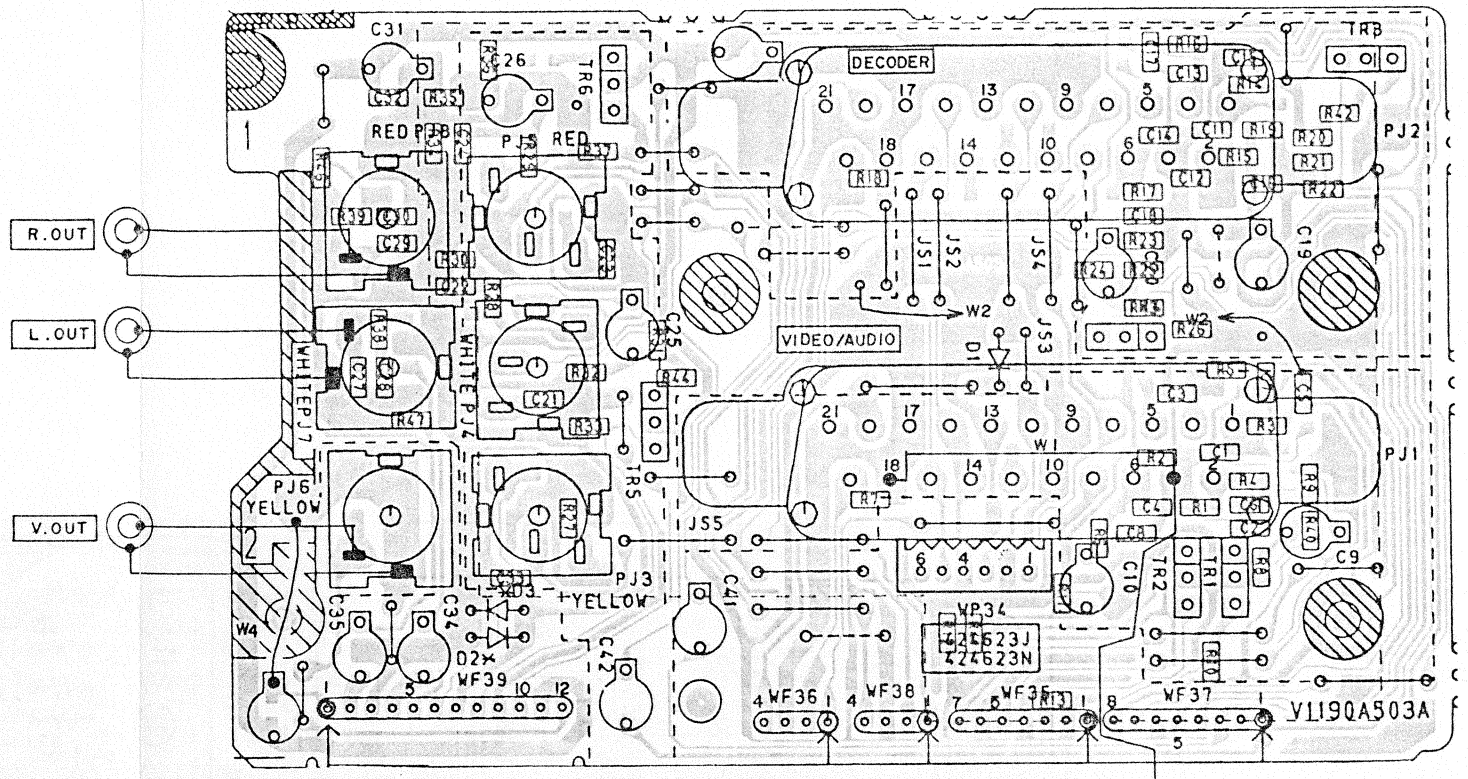

WARNING
LIVE AREA
TO AC PLUG
T1.6AH
V1182A5030
94V0
F1
L1
L2
C1
P1
P2
T1
PH1
TR1
TR2
IC2
FR2
FL1
JS3
JS7
JS8
R1
R2
R5
R6
R7
R8
R10
R11
R12
R13
R14
R15
R20
R21
R22
R24
C2
C3
C4
C5
C6
C7
C8
C9
C11
C12
C13
C14
C15
C16
C17
C22
C23
C24
C25
C26
C27
C28
D1
D2
D3
D4
D5
D6
D7
D20
D21
D24
D25
D27
D29
D30
D31
D32

POWER SUPPLY PCB V1182A5030(J1)

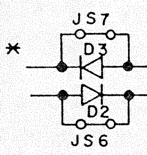
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


PJ3
R.IN
PJ4
L.IN
PJ5
V.IN


R.OUT
L.OUT
V.OUT
DECODER
VIDEO/AUDIO
PJ1
PJ2
PJ3 YELLOW
PJ5 RED
PJ6 YELLOW
PJ7 WHITE
PJ8 RED
PJ4 WHITE
WF36
WF37
WF38
WF39
WP34
424623J
424623N
W1
W2
W4
V1190A503A

IN/OUT(A) PCB V1190A503A


*
JS7
D3
D2
JS6
W3

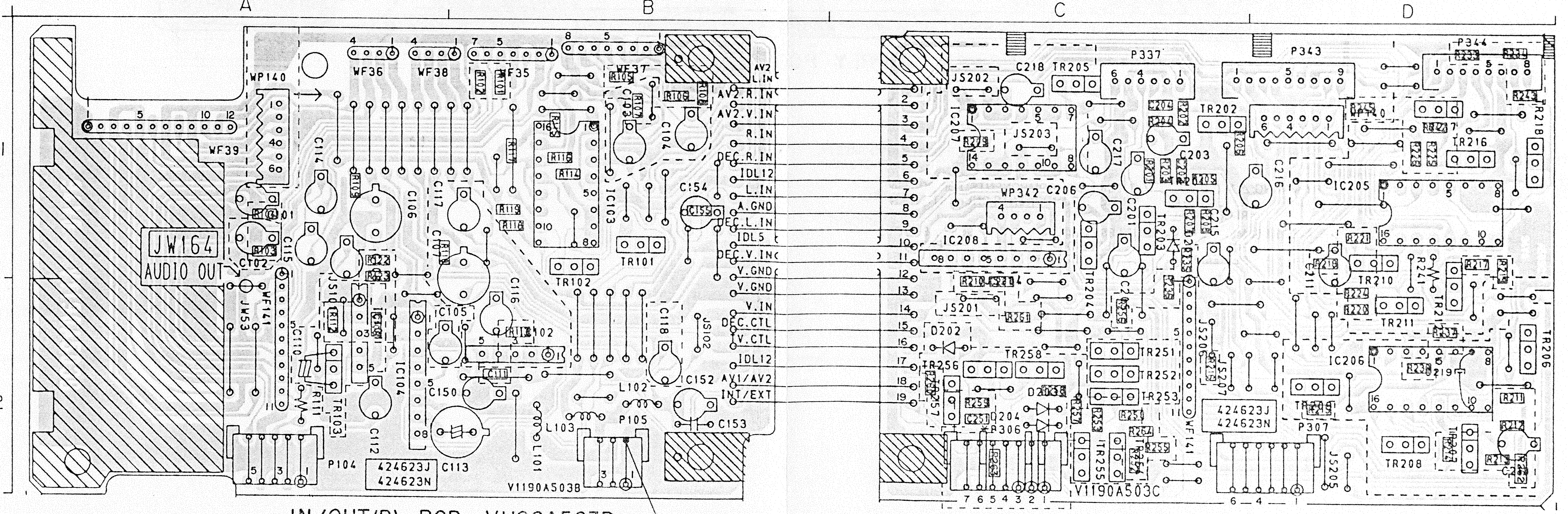
NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

PRINCIPAL PARTS LOCATION

ICs	
IC102	B2
IC103	B1
IC104	A2
IC207	C1
IC208	C1

CONNECTORs	
P104	A2
P105	B2
P306	C2
P307	C,D2
P337	C1
P343	D1
WF141	C2
WP140	A1

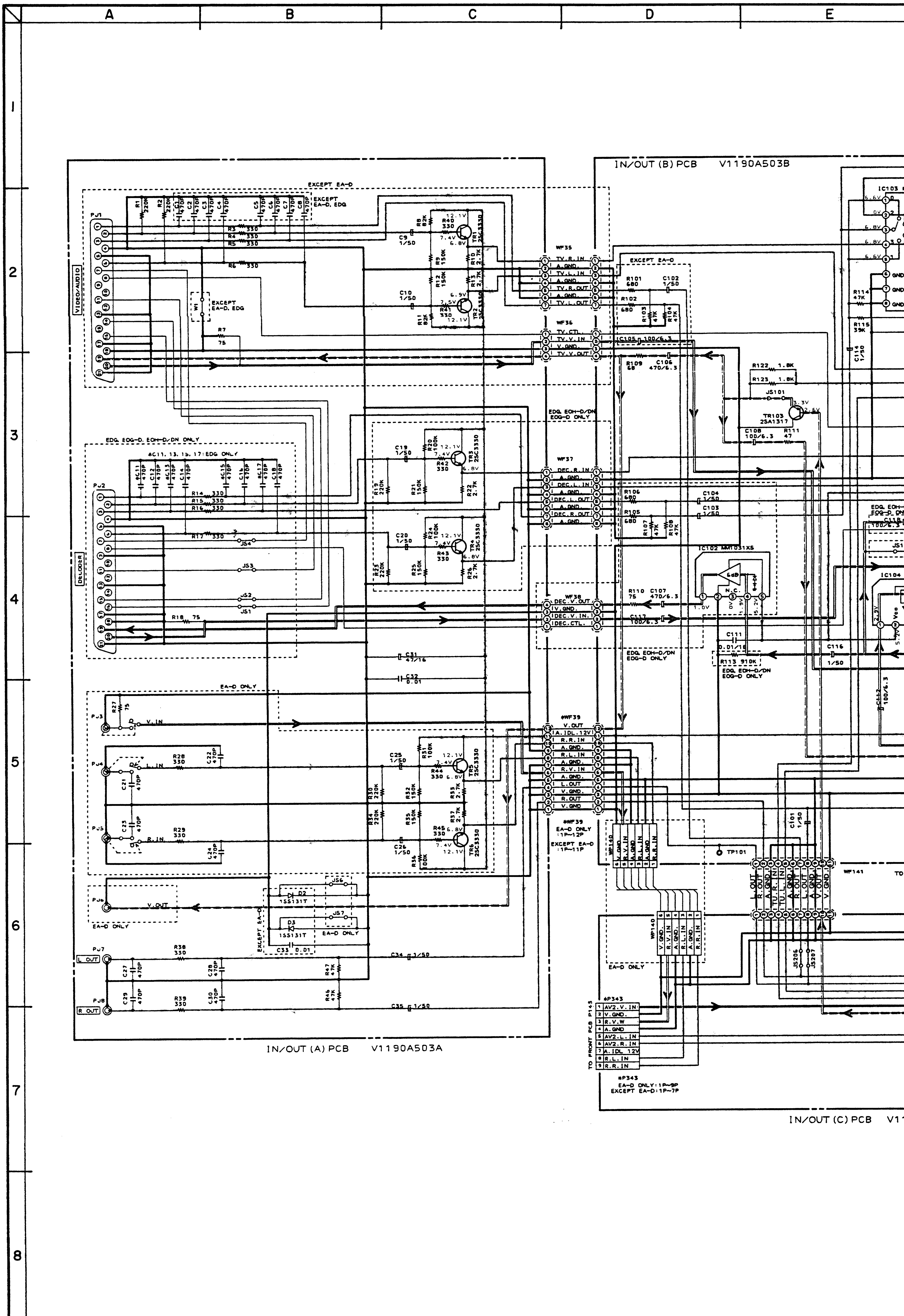
TRANSISTORs	
TR101	B1
TR102	B1
TR103	A2
TR201	C1
TR202	C1
TR203	C1
TR204	C1
TR205	C1
TR251	C2
TR252	C2
TR253	C2
TR256	C2
TR258	C2

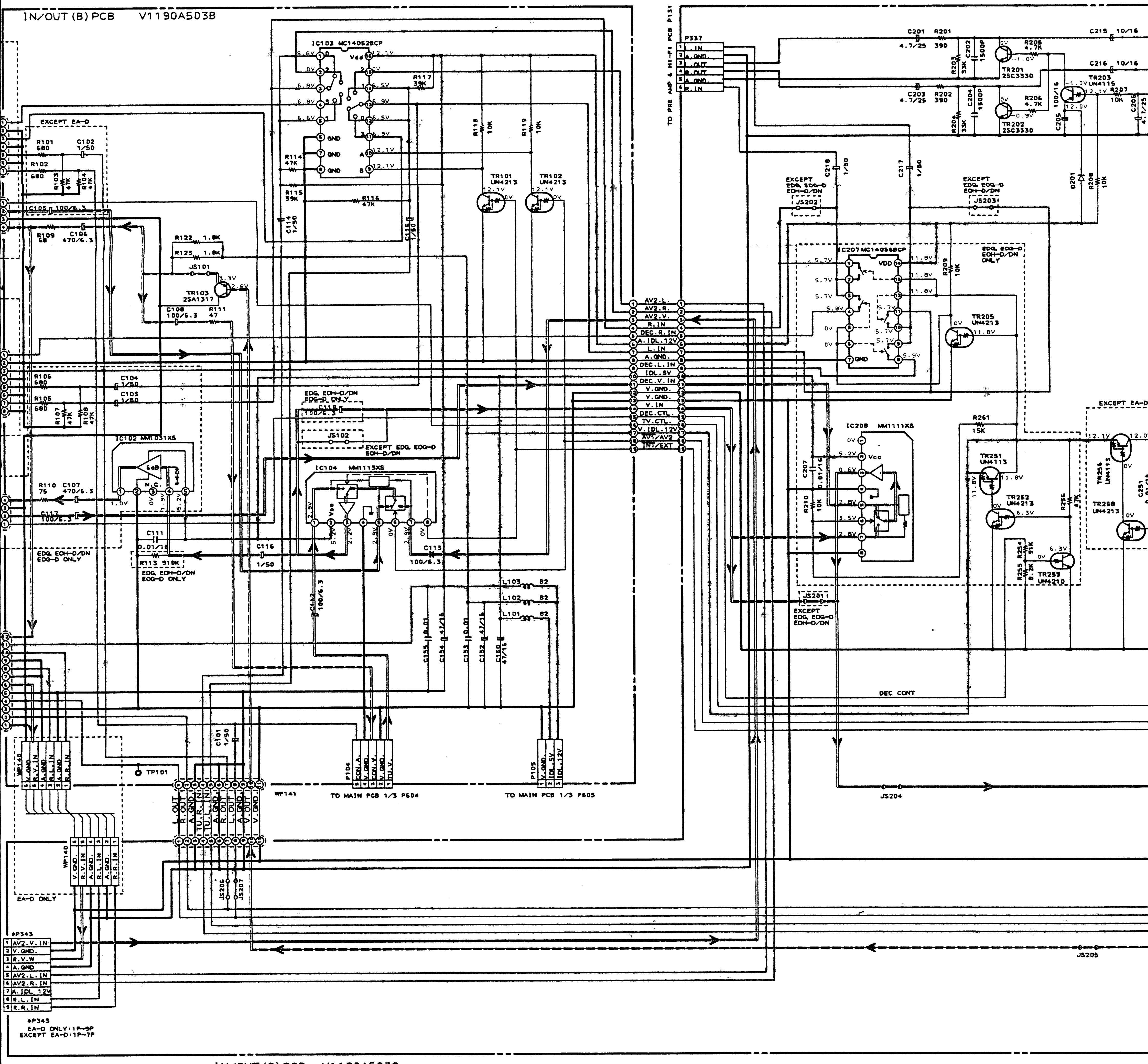

A
B
C
D
1
2
JW164 AUDIO OUT
WP140
WF36
WF38
WF35
WF37
WF39
WF141
IC103
IC104
IC105
IC205
IC206
IC207
IC208
P104
P105
P306
P307
P337
P343
P344
AV2 L.IN
AV2 R.IN
AV2 V.IN
R.IN
DEC.R.IN
IDL12
L.IN
A.GND
DEC.L.IN
IDL5
DEC.V.IN
V.GND
V.GND
V.IN
DEC.CTL
V.CTL
IDL12
AV1/AV2
INT/EXT
424623J
424623N
V1190A503B
V1190A503C
W3

IN/OUT(B) PCB V1190A503B

P306 3P～5P (EA-D ONLY)
2P～5P (EXCEPT EA-D)

IN/OUT(C) PCB V1190A503C


A
B
C
D
E
1
2
3
4
5
6
7
8
IN/OUT (A) PCB V1190A503A
IN/OUT (B) PCB V1190A503B
IN/OUT (C) PCB
EXCEPT EA-D
EXCEPT EA-D, EDG
VIDEO/AUDIO
PJ1
DECODER
PJ2
EDG, EOG-D, EOH-D/DN ONLY
EA-D ONLY
PJ3
PJ4
PJ5
PJ6
PJ7
PJ8
L OUT
R OUT
V.IN
L.IN
R.IN
V.OUT
TR1 2SC3330
TR2 2SC3330
TR3 2SC3330
TR4 2SC3330
TR5 2SC3330
TR6 2SC3330
D2 1SS131T
D3 1SS131T
JS1
JS2
JS3
JS4
JS6
JS7
WF35
TV.R.IN
A.GND.
TV.L.IN
TV.R.OUT
TV.L.OUT
WF36
TV.CTL.
TV.V.IN
V.GND.
TV.V.OUT
WF37
DEC.R.IN
DEC.L.IN
DEC.L.OUT
DEC.R.OUT
WF38
DEC.V.OUT
DEC.V.IN.
DEC.CTL.
*WF39
A.IDL.12V
R.R.IN
R.L.IN
R.V.IN
L.OUT
R.OUT
V.GND
*WF39
EA-D ONLY :1P~12P
EXCEPT EA-D :1P~11P
WP150
WP140
EA-D ONLY
*P343
AV2.V.IN
V.GND.
R.V.W
A.GND
AV2.L.IN
AV2.R.IN
A.IDL 12V
R.L.IN
R.R.IN
TO FRONT PCB P143
*P343
EA-D ONLY:1P~9P
EXCEPT EA-D:1P~7P
IC102 MM1031XS
IC103
IC104
TR103 2SA1317
JS101
TP101
WF141
EDG, EOH-D/DN EOG-D ONLY
JS206
JS207


IN/OUT (B) PCB V1190A503B
IN/OUT (C) PCB V1190A503C
IC103 MC14052BCP
IC102 MM1031XS
IC104 MM1113XS
IC207 MC14066BCP
IC208 MM1111XS
TR101 UN4213
TR102 UN4213
TR103 2SA1317
TR201 2SC3330
TR202 2SC3330
TR203 UN4115
TR205 UN4213
TR251 UN4113
TR252 UN4213
TR253 UN4210
TR256 UN4113
TR258 UN4213
TO PRE AMP & HI-FI PCB P131
P337
L.IN
A.GND.
L.OUT
R.OUT
A.GND.
R.IN
AV2.L.
AV2.R.
AV2.V.
R.IN
DEC.R.IN
A.IDL.12V
L.IN
A.GND.
DEC.L.IN
IDL.5V
DEC.V.IN
V.GND.
V.GND.
V.IN
DEC.CTL.
TV.CTL.
V.IDL.12V
AV1/AV2
INT/EXT
EXCEPT EA-D
EDG, EOH-D/DN EOG-D ONLY
EXCEPT EDG, EOG-D EOH-D/DN
JS101
JS102
JS201
JS202
JS203
JS204
JS205
JS206
JS207
DEC CONT
TP101
P104
CON.A.
V.GND.
CON.V.
V.GND.
TU.V.
TO MAIN PCB 1/3 P604
P105
V.GND.
IDL.5V
IDL.12V
TO MAIN PCB 1/3 P605
WF141
WP140
V.GND.
R.V.IN
A.GND.
R.L.IN
A.GND.
R.R.IN
EA-D ONLY
L.OUT
R.OUT
A.GND.
TU.R.IN
TU.L.IN
R.OUT
L.OUT
A.GND.
V.OUT
V.GND.
*P343
AV2.V.IN
V.GND.
R.V.W
A.GND
AV2.L.IN
AV2.R.IN
A.IDL. 12V
R.L.IN
R.R.IN
*P343
EA-D ONLY:1P~9P
EXCEPT EA-D:1P~7P

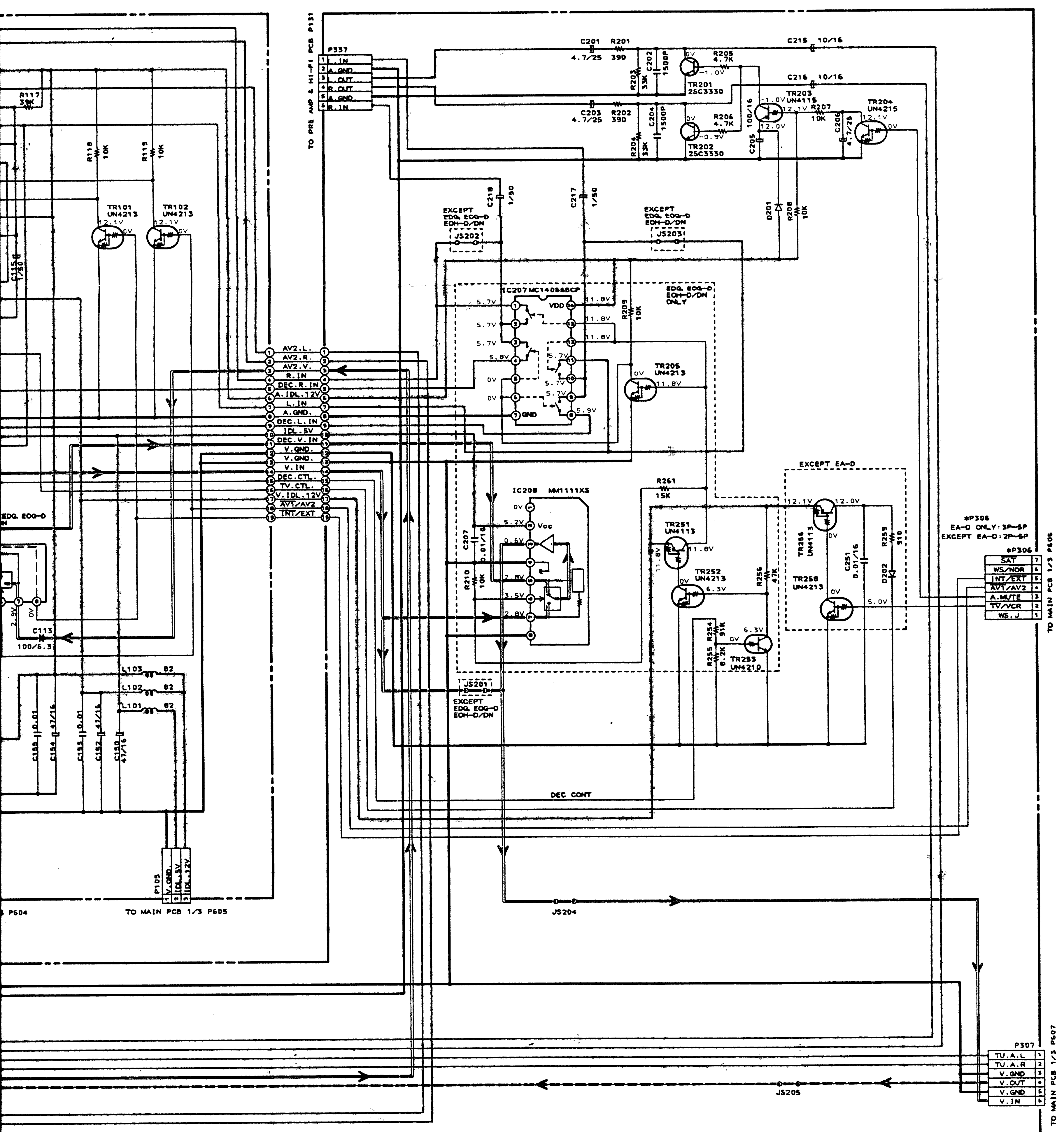
B (POWER SUPPLY) LINE
AUDIO OUT SIGNAL LINE
AUDIO IN SIGNAL LINE
VIDEO OUT SIGNAL LINE
VIDEO IN SIGNAL LINE

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE SPEED:SP)

IN/OU
SCHEM

No.


P337
L.IN
A.GND.
L.OUT
R.OUT
A.GND.
R.IN
TO PRE AMP & HI-FI PCB P131
C201 4.7/25
R201 390
C202 1500P
R203 33K
R205 4.7K
TR201 2SC3330
C203 4.7/25
R202 390
C204 1500P
R204 33K
R206 4.7K
TR202 2SC3330
C215 10/16
C216 10/16
TR203 UN4115
R207 10K
C205 100/16
C206 4.7/25
TR204 UN4215
R117 33K
R118 10K
R119 10K
TR101 UN4213
TR102 UN4213
C218 1/50
C217 1/50
EXCEPT EDG, EOG-D EOH-D/DN
JS2202
JS2031
D201
R208 10K
IC207 MC14066BCP
VDD
GND
EDG, EOG-D EOH-D/DN ONLY
R209 10K
TR205 UN4213
AV2.L.
AV2.R.
AV2.V.
R.IN
DEC.R.IN
A.IDL.12V
L.IN
A.GND.
DEC.L.IN
IDL.5V
DEC.V.IN
V.GND.
V.GND.
V.IN
DEC.CTL.
TV.CTL.
V.IDL.12V
AV1/AV2
INT/EXT
IC208 MM1111XS
Vcc
C207 0.01/16
R210 10K
R261 15K
TR251 UN4113
TR252 UN4213
R256 47K
R254 91K
R255 8.2K
TR253 UN4210
EXCEPT EA-D
TR256 UN4113
C251 0.01/16
R259 910
D202
TR258 UN4213
*P306 EA-D ONLY:3P-SP EXCEPT EA-D:2P-SP
*P306
SAT
WS/NOR
INT/EXT
AV1/AV2
A.MUTE
TV/VCR
WS.J
TO MAIN PCB 1/3 P606
EDG, EOG-D
C113 100/6.3
L103 82
L102 82
L101 82
C155 0.01
C154 47/16
C153 0.01
C152 47/16
C150 47/16
JS201
EXCEPT EDG, EOG-D EOH-D/DN
DEC CONT
P105
V.GND.
IDL.5V
IDL.12V
TO MAIN PCB 1/3 P605
P604
JS204
P307
TU.A.L
TU.A.R
V.GND
V.OUT
V.GND
V.IN
JS205
TO MAIN PCB 1/3 P607

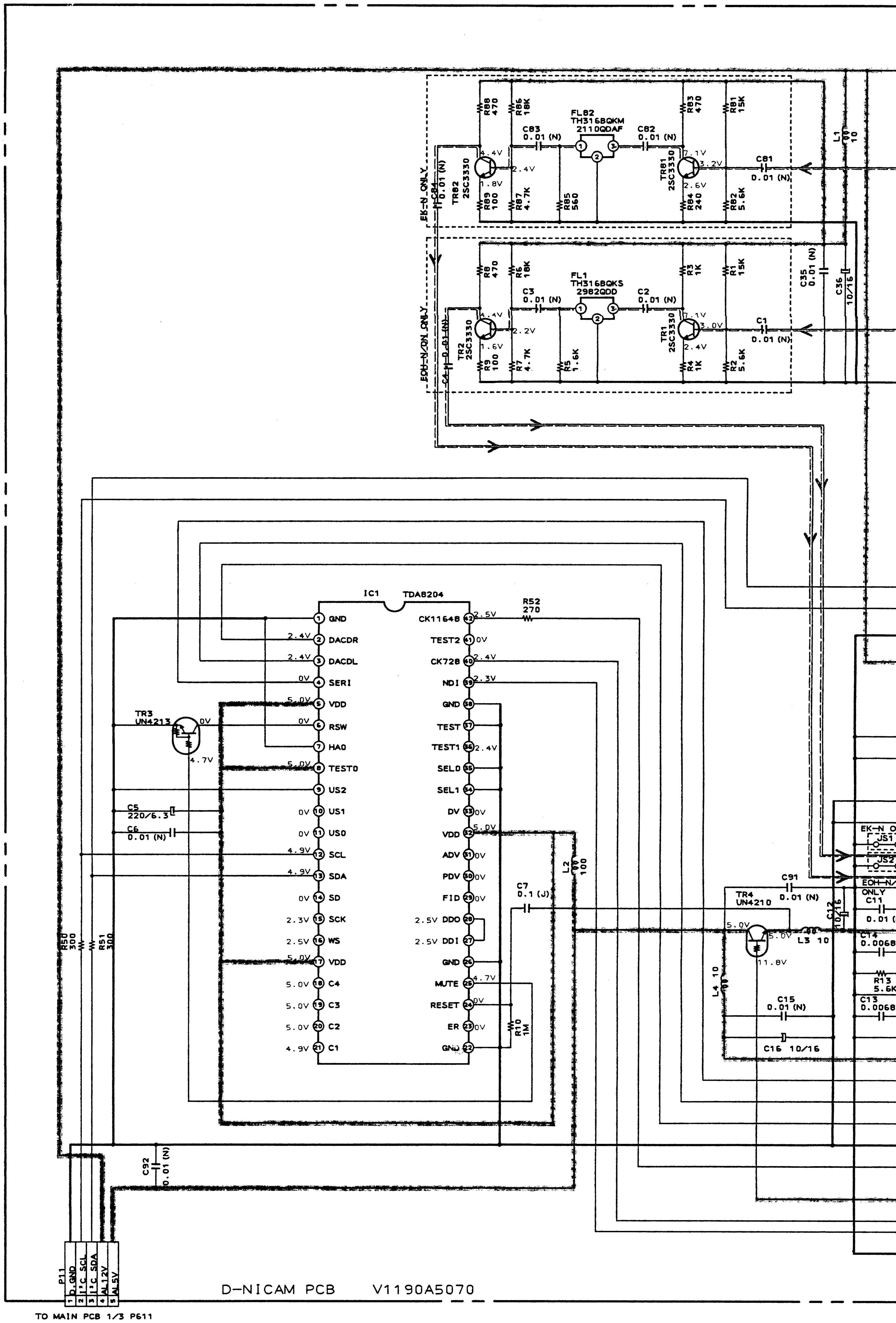
B (POWER SUPPLY) LINE
AUDIO OUT SIGNAL LINE
AUDIO IN SIGNAL LINE
VIDEO OUT SIGNAL LINE
VIDEO IN SIGNAL LINE

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE SPEED: SP)

IN/OUT
SCHEMATIC DIAGRAM

No.18-9 V121409M
A0



A
B
C
D
E
1
2
3
4
5
6
7
8
EK-N ONLY
C84 0.01 (N)
TR82 2SC3330
R88 470
R86 18K
C83 0.01 (N)
FL82 TH316BQKM 2110QDAF
C82 0.01 (N)
R83 470
R81 15K
TR81 2SC3330
C81 0.01 (N)
R89 100
R87 4.7K
R85 560
R84 240
R82 5.6K
L1 10
EGH-N/GN ONLY
C4 0.01 (N)
TR2 2SC3330
R8 470
R6 18K
C3 0.01 (N)
FL1 TH316BQKS 2982QDD
C2 0.01 (N)
R3 1K
R1 15K
TR1 2SC3330
C1 0.01 (N)
R9 100
R7 4.7K
R5 1.6K
R4 1K
R2 5.6K
C35 0.01 (N)
C36 10/16
IC1 TDA8204
GND
DACDR
DACDL
SERI
VDD
RSW
HA0
TEST0
US2
US1
US0
SCL
SDA
SD
SCK
WS
VDD
C4
C3
C2
C1
CK11648
TEST2
CK728
NDI
GND
TEST
TEST1
SEL0
SEL1
DV
VDD
ADV
PDV
FID
DDO
DDI
GND
MUTE
RESET
ER
GND
R52 270
TR3 UN4213
C5 220/6.3
C6 0.01 (N)
L2 100
C7 0.1 (J)
R10 1M
R50 300
R51 300
C92 0.01 (N)
TR4 UN4210
C91 0.01 (N)
C12 10/16
L3 10
L4 10
C15 0.01 (N)
C16 10/16
C11 0.01
C14 0.0068
R13 5.6K
C13 0.0068
EK-N ONLY
JS1
JS2
EGH-N/GN ONLY
P11
D.GND
I²C SCL
I²C SDA
AL12V
AL5V
D-NICAM PCB V1190A5070
TO MAIN PCB 1/3 P611

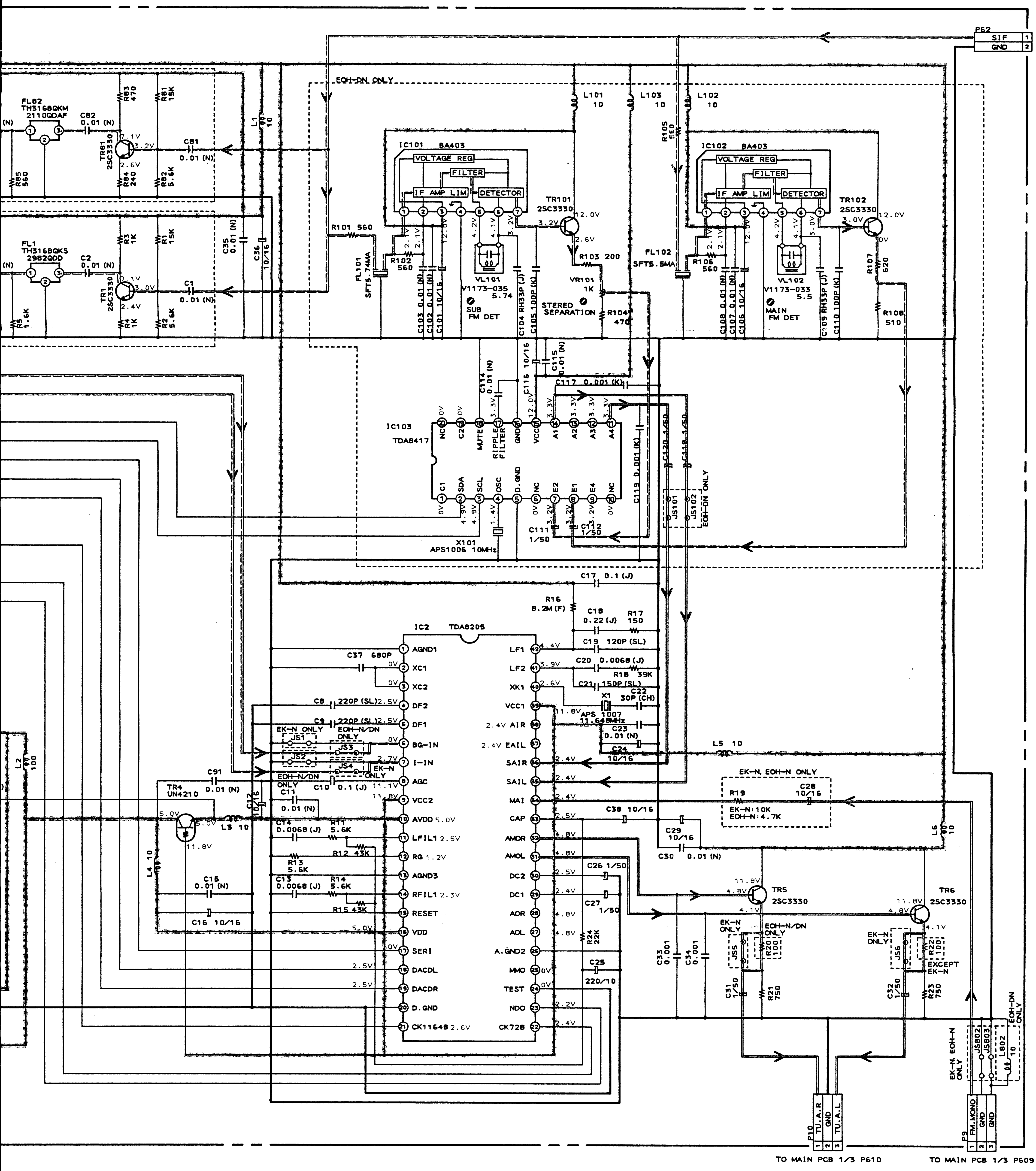
▬▬▬ B (POWER SUPPLY) LINE

- - - - - SIF & PCM DATA LINE

——— AUDIO SIGNAL LINE

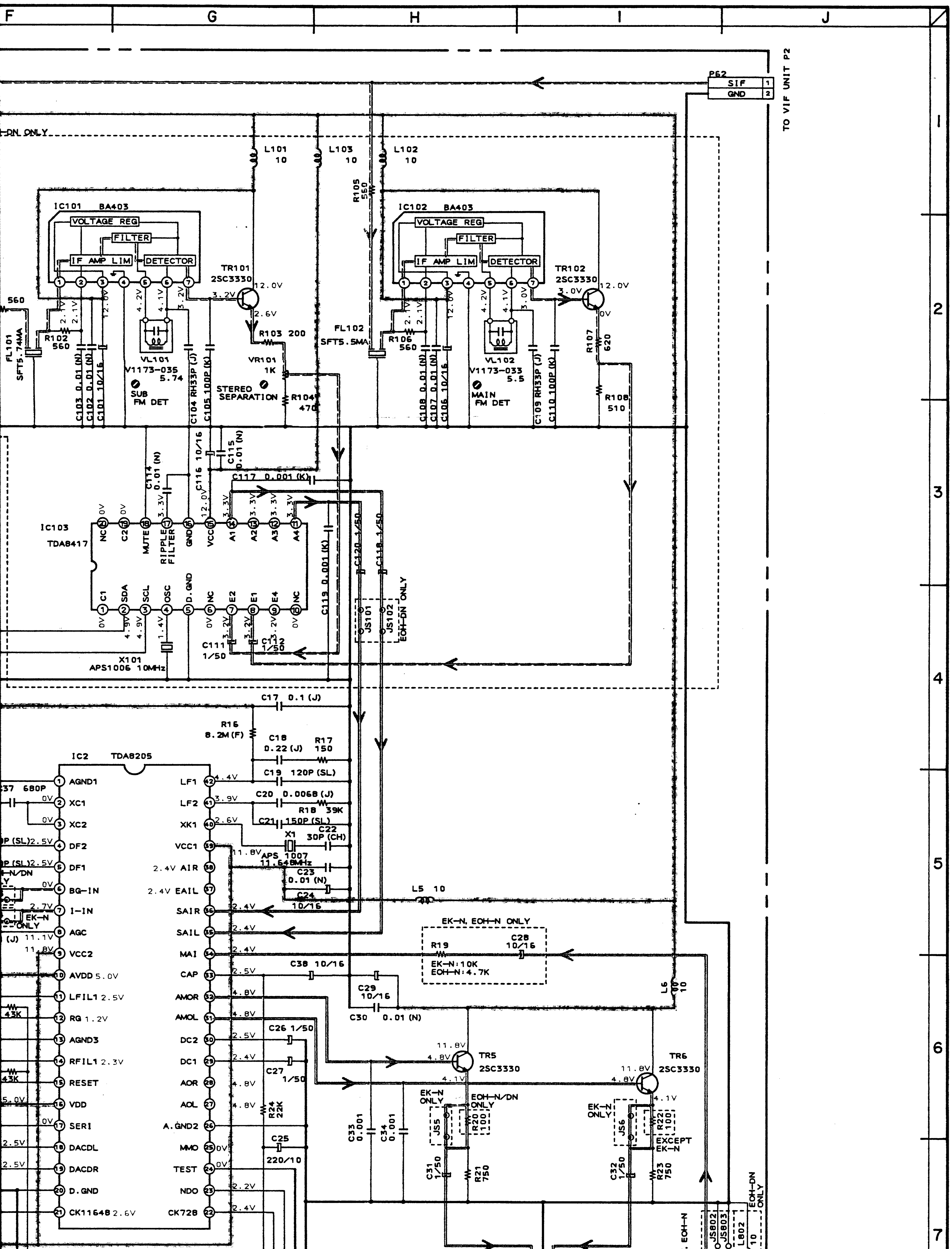
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN µF 50WV (M)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL INDUCTORS IN µH (K)

INDICATED VOLTAGES WERE MEASURED
DURING E-E MODE.
(NO SIGNAL WAS BEING INPUT.)


P62
SIF
GND
EOH-DN ONLY
FL82
TH316BQKM
2110QDAF
C82
0.01 (N)
R83
470
R81
15K
TR81
2SC3330
7.1V
3.2V
2.6V
C81
0.01 (N)
R85
560
R84
240
R82
5.6K
L1
10
FL1
TH316BQKS
2982QDD
C2
0.01 (N)
R3
1K
R1
15K
TR1
2SC3330
3.0V
2.4V
C1
0.01 (N)
R5
1.6K
R4
1K
R2
5.6K
C35
0.01 (N)
C36
10/16
L101
10
L103
10
L102
10
R105
560
IC101 BA403
IC102 BA403
VOLTAGE REG
FILTER
IF AMP LIM
DETECTOR
TR101
2SC3330
12.0V
3.2V
2.6V
R101 560
R102
560
FL101
SFT5.74MA
C103 0.01 (N)
C102 0.01 (N)
C101 10/16
VL101
V1173-035
5.74
SUB
FM DET
C104 RH33P (J)
C105 100P (K)
R103 200
VR101
1K
STEREO
SEPARATION
R104
470
FL102
SFT5.5MA
R106
560
C108 0.01 (N)
C107 0.01 (N)
C106 10/16
VL102
V1173-033
5.5
MAIN
FM DET
C109 RH33P (J)
C110 100P (K)
TR102
2SC3330
R107
620
R108
510
C114
0.01 (N)
C116 10/16
C115
0.01 (N)
C117 0.001 (K)
IC103
TDA8417
NC
C2
MUTE
RIPPLE FILTER
GND
VCC
A1
A2
A3
A4
C1
SDA
SCL
OSC
D.GND
NC
E2
E1
E4
NC
C120 1/50
C118 1/50
C119 0.001 (K)
JS101
JS102
EOH-DN ONLY
C111
1/50
C112
1/50
X101
APS1006 10MHz
C17 0.1 (J)
R16
8.2M (F)
C18
0.22 (J)
R17
150
IC2 TDA8205
C19 120P (SL)
C20 0.0068 (J)
R18 39K
C21 150P (SL)
X1
APS 1007
11.648MHz
C22
30P (CH)
C23
0.01 (N)
C24
10/16
C37 680P
C8 220P (SL)
C9 220P (SL)
EK-N ONLY
EOH-N/DN ONLY
JS1
JS2
JS3
JS4
EK-N ONLY
EOH-N/DN ONLY
C10 0.1 (J)
C11
0.01 (N)
AGND1
XC1
XC2
DF2
DF1
BG-IN
I-IN
AGC
VCC2
AVDD
LFIL1
RG
AGND3
RFIL1
RESET
VDD
SERI
DACDL
DACDR
D.GND
CK11648
LF1
LF2
XK1
VCC1
AIR
EAIL
SAIR
SAIL
MAI
CAP
AMOR
AMOL
DC2
DC1
AOR
AOL
A.GND2
MMO
TEST
NDO
CK728
L5 10
EK-N, EOH-N ONLY
R19
C28
10/16
EK-N:10K
EOH-N:4.7K
C38 10/16
C29
10/16
C30 0.01 (N)
L6
10
C26 1/50
C27
1/50
R24
22K
C25
220/10
TR5
2SC3330
TR6
2SC3330
EK-N ONLY
EOH-N/DN ONLY
JS5
R20
100
R21
750
C31
1/50
C33
0.001
C34
0.001
JS6
R22
100
EXCEPT EK-N
R23
750
C32
1/50
TR4
UN4210
C91
0.01 (N)
C12
10/16
L3 10
L4 10
L2
100
C13
0.0068 (J)
R14
5.6K
R15 43K
C14
0.0068 (J)
R11
5.6K
R12 43K
R13
5.6K
C15
0.01 (N)
C16 10/16
JS802
JS803
L802
10
EK-N, EOH-N ONLY
EOH-DN ONLY
P10
TU.A.R
GND
TU.A.L
P9
FM.MONO
GND
GND
TO MAIN PCB 1/3 P610
TO MAIN PCB 1/3 P609

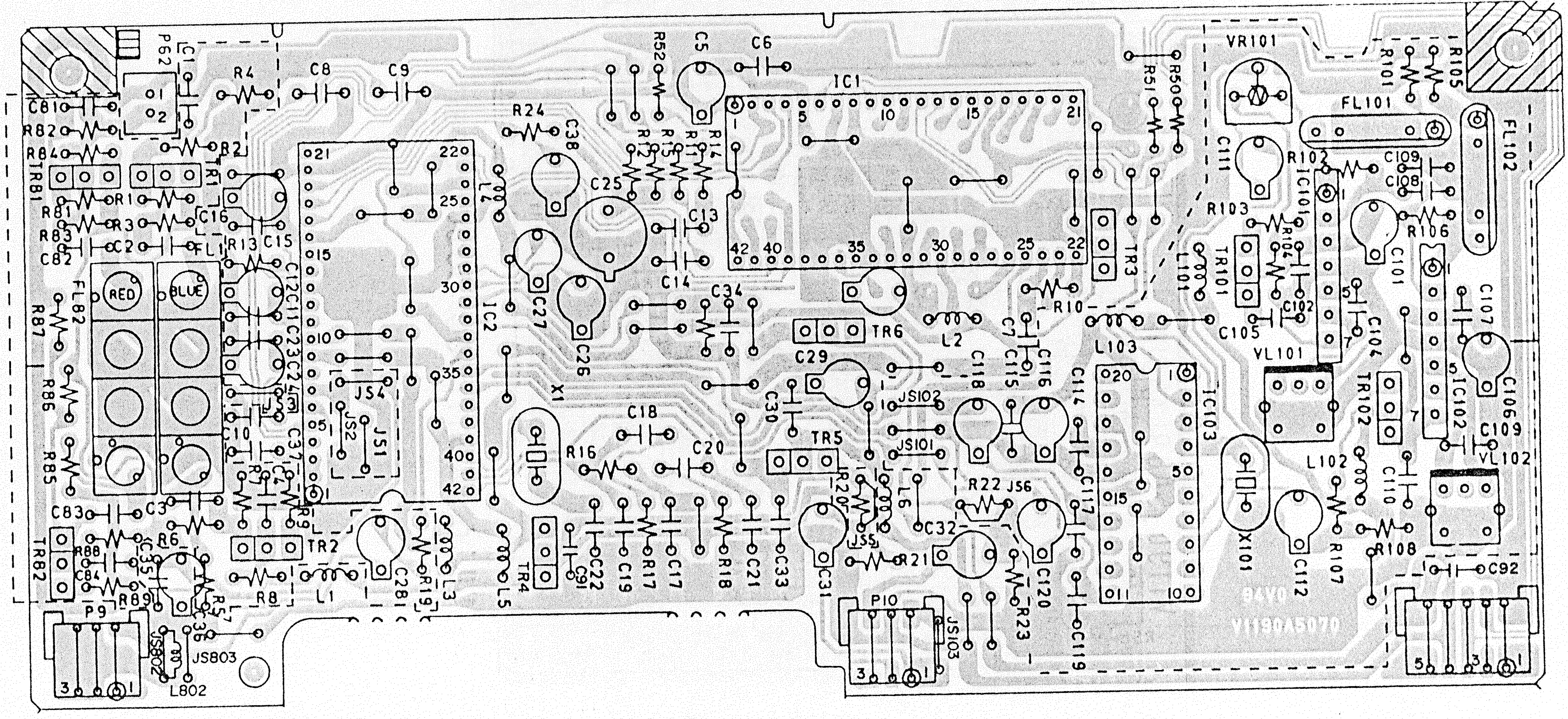
INDICATED VOLTAGES WERE MEASURED
DURING E-E MODE.
(NO SIGNAL WAS BEING INPUT.)

VS-G735EK-N
VS-G735EOH-DN/EOH-N
D-NICAM
SCHEMATIC DIAGRAM
No.18-10 V121410M
A1



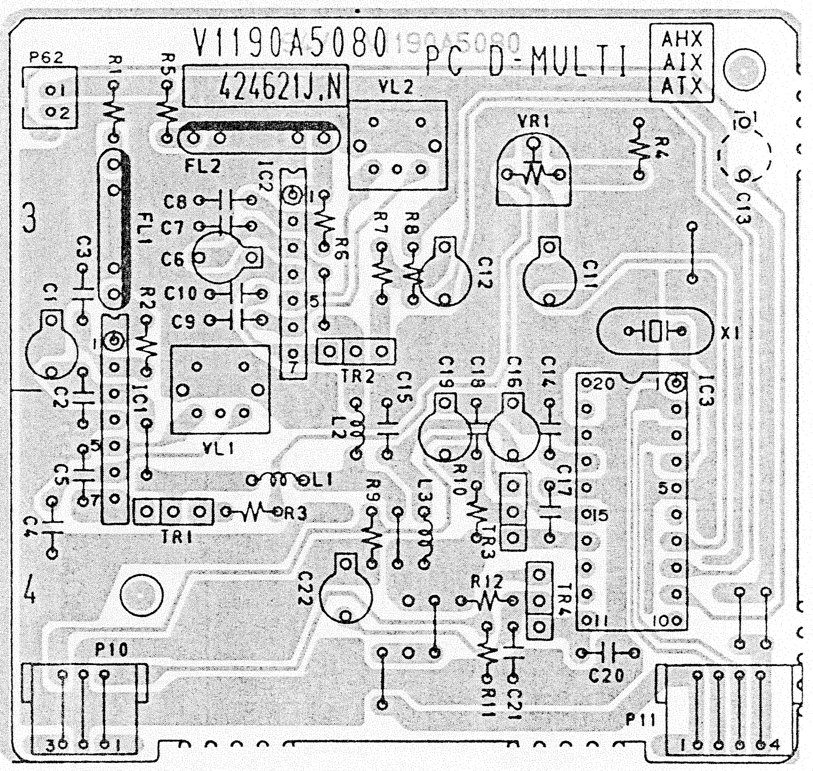
F
G
H
I
J
1
2
3
4
5
6
7
8
P62
SIF
GND
TO VIF UNIT P2
EOH-DN ONLY
L101 10
L103 10
L102 10
R105 560
IC101 BA403
IC102 BA403
VOLTAGE REG
FILTER
IF AMP LIM
DETECTOR
TR101 2SC3330
TR102 2SC3330
R102 560
R106 560
R103 200
VR101 1K
R104 470
R107 620
R108 510
FL101 SFT5.74MA
FL102 SFT5.5MA
VL101 V1173-035 5.74
VL102 V1173-033 5.5
SUB FM DET
MAIN FM DET
STEREO SEPARATION
C101 10/16
C102 0.01 (N)
C103 0.01 (N)
C104 RH33P (J)
C105 100P (K)
C106 10/16
C107 0.01 (N)
C108 0.01 (N)
C109 RH33P (J)
C110 100P (K)
C114 0.01 (N)
C115 0.01 (N)
C116 10/16
C117 0.001 (K)
C118 1/50
C119 0.001 (K)
C120 1/50
C111 1/50
C112 1/50
IC103 TDA8417
NC
C2
MUTE
RIPPLE FILTER
GND
VCC
A1
A2
A3
A4
C1
SDA
SCL
OSC
D.GND
E2
E1
E4
JS101
JS102
EOH-DN ONLY
X101 APS1006 10MHz
C17 0.1 (J)
R16 8.2M (F)
C18 0.22 (J)
R17 150
C19 120P (SL)
C20 0.0068 (J)
R18 39K
C21 150P (SL)
C22 30P (CH)
X1 APS 1007 11.648MHz
C23 0.01 (N)
C24 10/16
L5 10
IC2 TDA8205
AGND1
XC1
XC2
DF2
DF1
BG-IN
I-IN
AGC
VCC2
AVDD
LFIL1
RG
AGND3
RFIL1
RESET
VDD
SERI
DACDL
DACDR
D.GND
CK11648
LF1
LF2
XK1
VCC1
AIR
EAIL
SAIR
SAIL
MAI
CAP
AMOR
AMOL
DC2
DC1
AOR
AOL
A.GND2
MMO
TEST
NDO
CK728
C37 680P
EK-N ONLY
EK-N, EOH-N ONLY
R19
C28 10/16
EK-N:10K
EOH-N:4.7K
C38 10/16
C29 10/16
C30 0.01 (N)
L6 10
C26 1/50
C27 1/50
R24 22K
C25 220/10
TR5 2SC3330
TR6 2SC3330
C33 0.001
C34 0.001
JS5
EOH-N/DN ONLY
R20 100
R21 750
C31 1/50
JS6
R22 100
EXCEPT EK-N
R23 750
C32 1/50
JS802
JS803
L802 10
EOH-DN ONLY
P10
TU.A.R
GND
TU.A.L
P9
FM.MONO
TO MAIN PCB 1/3 P610
TO MAIN PCB 1/3 P609

VS-G735EK-N
VS-G735EOH-DN/EOH-N
D-NICAM
SCHEMATIC DIAGRAM
No.18-10 V121410M A1

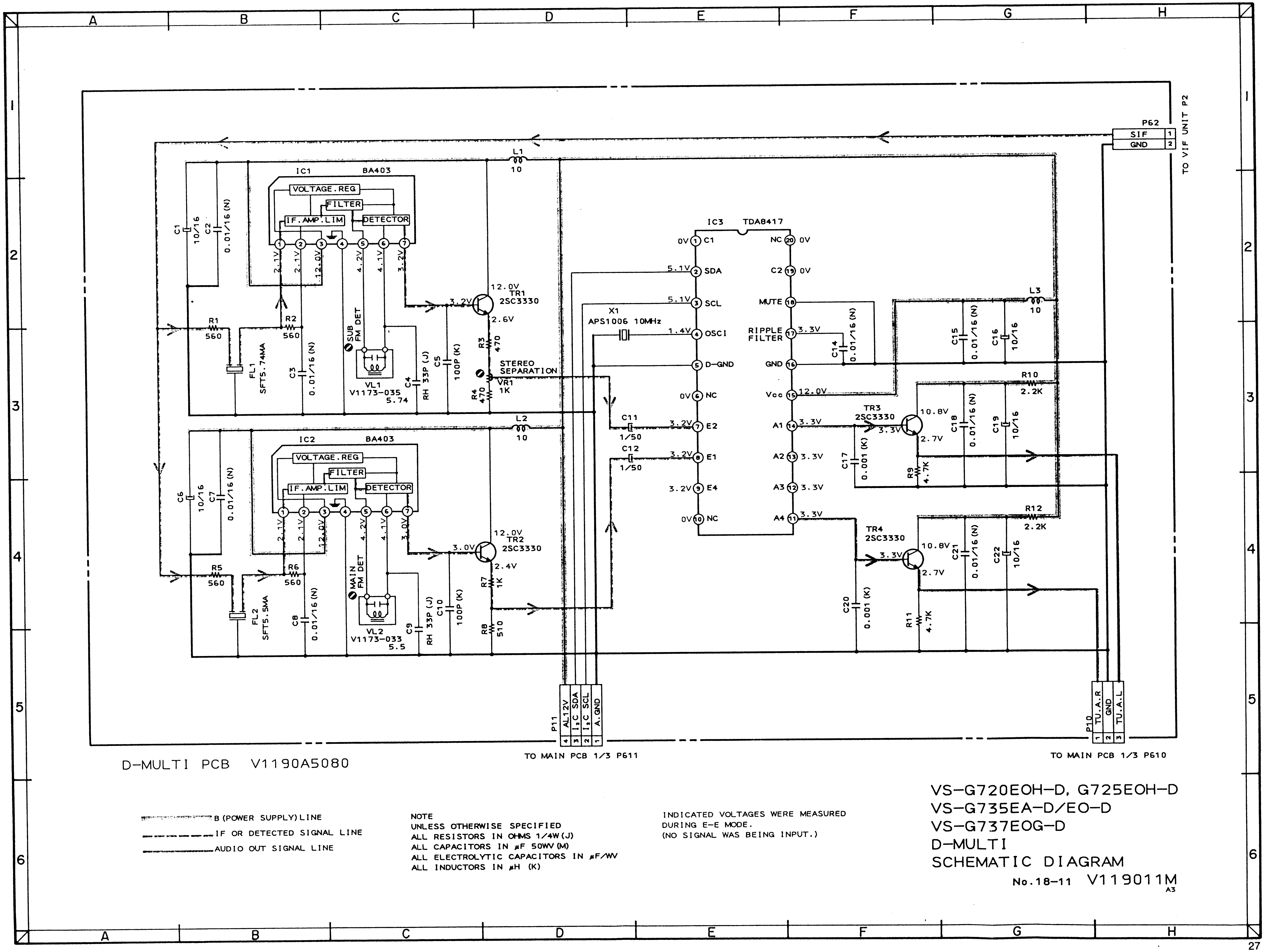

P62
C1
R4
C8
C9
C6
C5
R52
IC1
R51
R50
VR101
R101
R105
FL101
FL102
C81
R82
R84
R2
TRB1
R1
R81
R3
R83
C16
C15
C82
C2
FL1
R13
RED
BLUE
FL82
R87
R86
R85
C83
C3
TRB2
R88
R6
C35
C84
R89
R5
C36
P9
JS802
JS803
L802
IC2
C12
C11
C23
C24
JS3
JS4
JS2
JS1
C10
C37
C4
R7
TR2
R8
L1
C28
R19
L3
L5
TR4
C22
C91
C19
R17
C17
R18
C21
C33
C31
R24
C38
L7
C25
R12
R15
R11
R14
C13
C14
C27
C26
C34
X1
C18
R16
C20
TR6
C29
C30
TR5
R20
L6
JS5
R21
JS102
JS101
C32
R22
JS6
L2
C7
C118
C115
C116
R10
TR3
L103
C114
C117
C120
R23
C119
P10
JS103
IC103
X101
C112
C111
R102
R103
IC101
TR101
L101
R104
C102
C105
VL101
C109
C108
R106
C101
C104
TR102
C110
L102
R107
R108
IC102
C107
C106
VL102
C92
94V0
V1190A5070

D-NICAM PCB V1190A5070(J1)

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.


V1190A5080
PC D-MULTI
AHX
AIX
ATX
P62
R1
R5
424621J.N
VL2
VR1
R4
IO1
C13
FL2
IC2
C8
C7
C6
R6
R7
R8
C12
C11
3
FL1
C3
C1
R2
C10
C9
X1
TR2
C19
C18
C16
C14
IC3
20
1
C2
IC1
C15
L2
VL1
R10
C17
15
5
C5
L1
R3
R9
L3
TR3
C4
TR1
4
C22
R12
TR4
11
10
P10
C20
R11
C21
P11

D-MULTI PCB V1190A5080



A
B
C
D
E
F
G
H
1
2
3
4
5
6
P62
SIF
GND
TO VIF UNIT P2
IC1
BA403
VOLTAGE.REG
FILTER
IF.AMP.LIM
DETECTOR
C1
10/16
C2
0.01/16 (N)
2.1V
2.1V
12.0V
4.2V
4.1V
3.2V
L1
10
12.0V
TR1
2SC3330
3.2V
2.6V
R1
560
R2
560
FL1
SFT5.74MA
C3
0.01/16 (N)
SUB FM DET
VL1
V1173-035
5.74
C4
RH 33P (J)
C5
100P (K)
R3
470
STEREO SEPARATION
VR1
1K
R4
470
IC2
BA403
C6
10/16
C7
0.01/16 (N)
2.1V
2.1V
12.0V
4.2V
4.1V
3.0V
L2
10
12.0V
TR2
2SC3330
3.0V
2.4V
R5
560
R6
560
FL2
SFT5.5MA
C8
0.01/16 (N)
MAIN FM DET
VL2
V1173-033
5.5
C9
RH 33P (J)
C10
100P (K)
R7
1K
R8
510
IC3
TDA8417
0V C1
5.1V SDA
5.1V SCL
1.4V OSCI
D-GND
0V NC
3.2V E2
3.2V E1
3.2V E4
0V NC
NC 0V
C2 0V
MUTE
RIPPLE FILTER 3.3V
GND
Vcc 12.0V
A1 3.3V
A2 3.3V
A3 3.3V
A4 3.3V
X1
APS1006 10MHz
C11
1/50
C12
1/50
C14
0.01/16 (N)
L3
10
C15
0.01/16 (N)
C16
10/16
R10
2.2K
TR3
2SC3330
10.8V
3.3V
2.7V
C17
0.001 (K)
R9
4.7K
C18
0.01/16 (N)
C19
10/16
R12
2.2K
TR4
2SC3330
10.8V
3.3V
2.7V
C20
0.001 (K)
R11
4.7K
C21
0.01/16 (N)
C22
10/16
P11
AL12V
I2C SDA
I2C SCL
A.GND
TO MAIN PCB 1/3 P611
P10
TU.A.R
GND
TU.A.L
TO MAIN PCB 1/3 P610

D-MULTI PCB V1190A5080

B (POWER SUPPLY) LINE

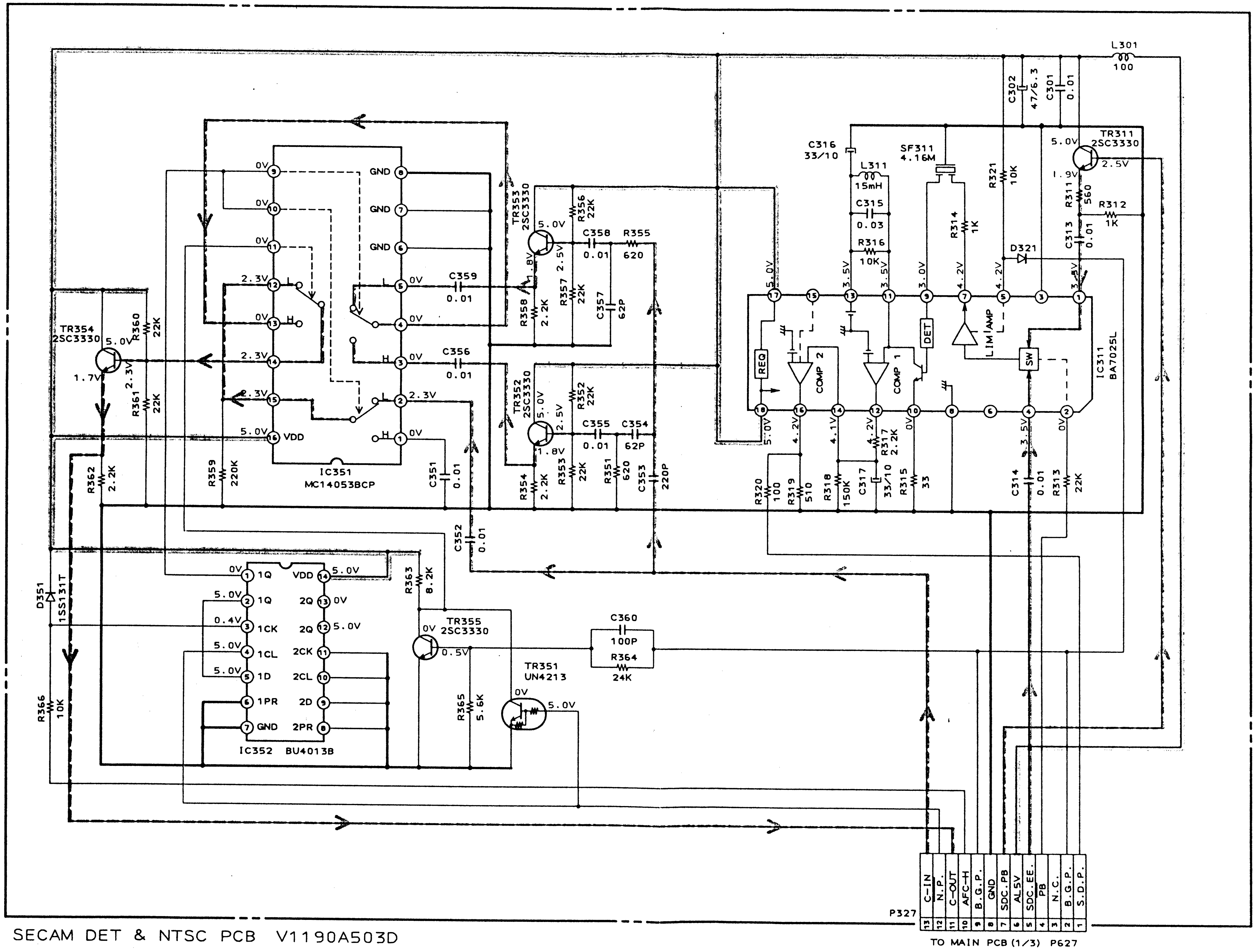
IF OR DETECTED SIGNAL LINE

AUDIO OUT SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN µF 50WV (M)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL INDUCTORS IN µH (K)

INDICATED VOLTAGES WERE MEASURED
DURING E-E MODE.
(NO SIGNAL WAS BEING INPUT.)

VS-G720EOH-D, G725EOH-D
VS-G735EA-D/EO-D
VS-G737EOG-D
D-MULTI
SCHEMATIC DIAGRAM
No.18-11 V119011M
A3


L301
100
C302
47/6.3
C301
0.01
TR311
2SC3330
5.0V
2.5V
1.9V
R321
10K
R311
560
R312
1K
C316
33/10
L311
15mH
C315
0.03
R316
10K
SF311
4.16M
R314
1K
D321
C313
0.01
IC311
BA7025L
REQ
COMP 2
COMP 1
DET
LIM AMP
SW
R320
100
R319
510
R318
150K
C317
33/10
R317
2.2K
R315
33
C314
0.01
R313
22K
TR353
2SC3330
R356
22K
C358
0.01
R355
620
C359
0.01
R358
2.2K
R357
22K
C357
62P
C356
0.01
TR352
2SC3330
R352
22K
C355
0.01
C354
62P
R354
2.2K
R353
22K
R351
620
C353
220P
IC351
MC14053BCP
VDD
GND
C351
0.01
C352
0.01
TR354
2SC3330
R360
22K
R361
22K
R359
220K
R362
2.2K
D351
1SS131T
R366
10K
IC352
BU4013B
1Q
1CK
1CL
1D
1PR
2Q
2CK
2CL
2D
2PR
R363
8.2K
TR355
2SC3330
R365
5.6K
TR351
UN4213
C360
100P
R364
24K
P327
C-IN
N.P.
C-OUT
AFC-H
B.G.P.
GND
SDC.PB
AL5V
SDC.EE
PB
N.C.
B.G.P.
S.D.P.
TO MAIN PCB (1/3) P627

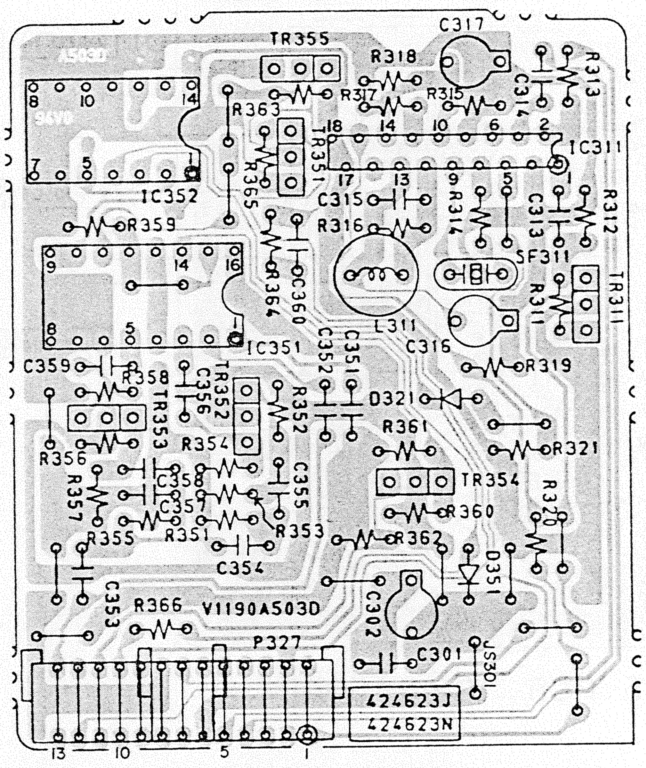
SECAM DET & NTSC PCB V1190A503D

▨ B (POWER SUPPLY) LINE
- - - PB CHROMA SIGNAL LINE
— E-E CHROMA SIGNAL LINE

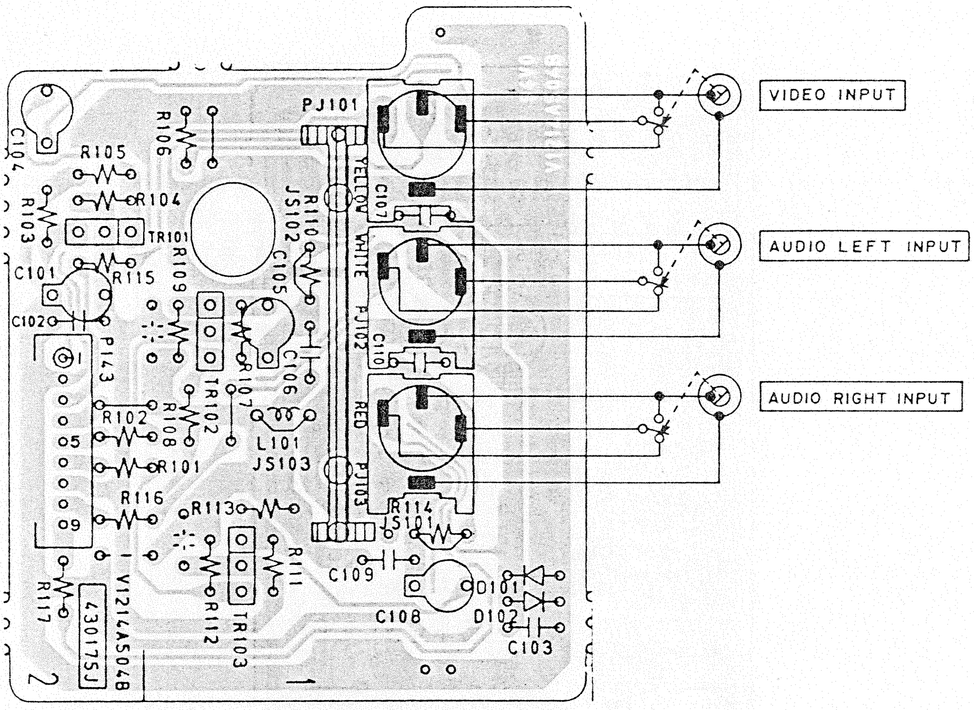
NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P-PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV
ALL INDUCTORS IN μH (K)

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE USED: PAL RECORDED TAPE)
(TAPE SPEED: SP)

VS-G735EDG
SECAM DET & NTSC
SCHEMATIC DIAGRAM
No.18-12 V121411M
A3

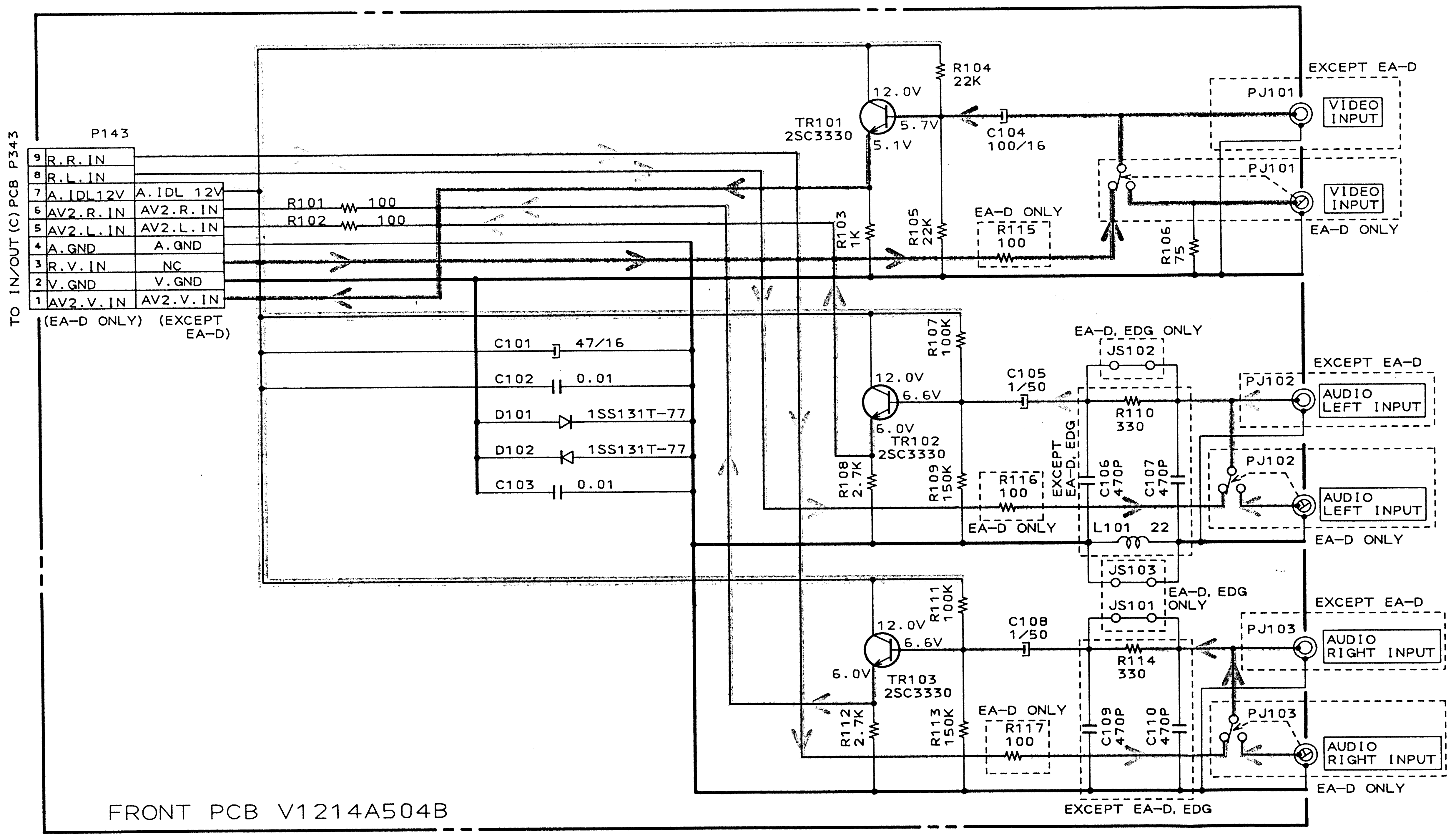

TR355
C317
R318
R313
C314
R317
R315
R363
IC311
TR351
R365
IC352
C315
R314
C313
R312
R359
R316
SF311
C360
R364
TR311
R311
IC351
L311
C316
C352
C351
C359
R358
C356
TR352
R352
R319
D321
TR353
R354
R361
R321
R356
C358
C355
TR354
R357
C357
R320
R360
R355
R351
R353
R362
D351
C354
C302
C353
R366
V1190A503D
P327
C301
JS301
424623J
424623N
13
10
5
1

SECAM.DET & NTSC PCB V1190A503D


VIDEO INPUT
AUDIO LEFT INPUT
AUDIO RIGHT INPUT
PJ101
PJ102
PJ103
C104
R105
R106
R104
R103
TR101
C101
R115
R109
C102
P143
R110
JS102
C105
C107
YELLOW
WHITE
C110
C106
TR102
R107
R108
R102
R101
L101
JS103
RED
R116
R113
R114
JS101
R111
C109
C108
D101
D102
C103
R117
R112
TR103
V1214A504B
430175J
1
5
9
2
1

FRONT PCB V1214A504B

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

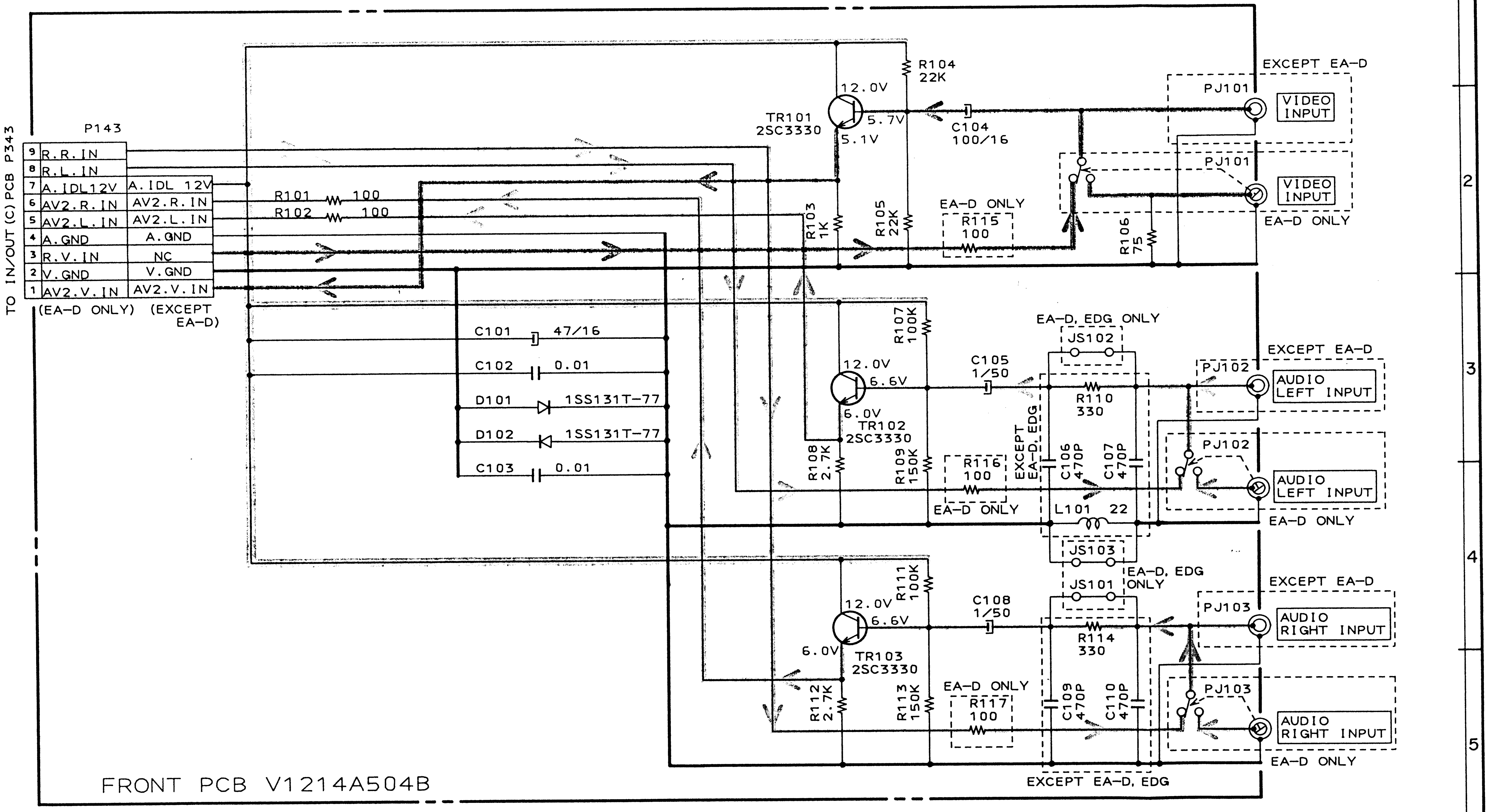

TO IN/OUT (C) PCB P343
P143
9 R.R.IN
8 R.L.IN
7 A.IDL12V | A.IDL 12V
6 AV2.R.IN | AV2.R.IN
5 AV2.L.IN | AV2.L.IN
4 A.GND | A.GND
3 R.V.IN | NC
2 V.GND | V.GND
1 AV2.V.IN | AV2.V.IN
(EA-D ONLY) (EXCEPT EA-D)
R101 100
R102 100
C101 47/16
C102 0.01
D101 1SS131T-77
D102 1SS131T-77
C103 0.01
TR101 2SC3330
12.0V
5.7V
5.1V
R104 22K
C104 100/16
R103 1K
R105 22K
EA-D ONLY
R115 100
R106 75
EXCEPT EA-D
PJ101
VIDEO INPUT
PJ101
VIDEO INPUT
EA-D ONLY
R107 100K
12.0V
6.6V
6.0V
TR102 2SC3330
R108 2.7K
R109 150K
R116 100
EA-D ONLY
C105 1/50
EA-D, EDG ONLY
JS102
R110 330
EXCEPT EA-D, EDG
C106 470P
C107 470P
L101 22
JS103
JS101
EA-D, EDG ONLY
EXCEPT EA-D
PJ102
AUDIO LEFT INPUT
PJ102
AUDIO LEFT INPUT
EA-D ONLY
R111 100K
12.0V
6.6V
6.0V
TR103 2SC3330
C108 1/50
R114 330
R112 2.7K
R113 150K
EA-D ONLY
R117 100
C109 470P
C110 470P
EXCEPT EA-D
PJ103
AUDIO RIGHT INPUT
PJ103
AUDIO RIGHT INPUT
EA-D ONLY
EXCEPT EA-D, EDG
FRONT PCB V1214A504B

B (POWER SUPPLY) LINE
AUDIO IN SIGNAL LINE
VIDEO IN SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF
ALL ELECTROLYTIC CAPACITOR IN μF/WV

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE SPEED: SP)

FRONT
SCHEMATIC DIAGRAM
No.18-13 V121412M
A3

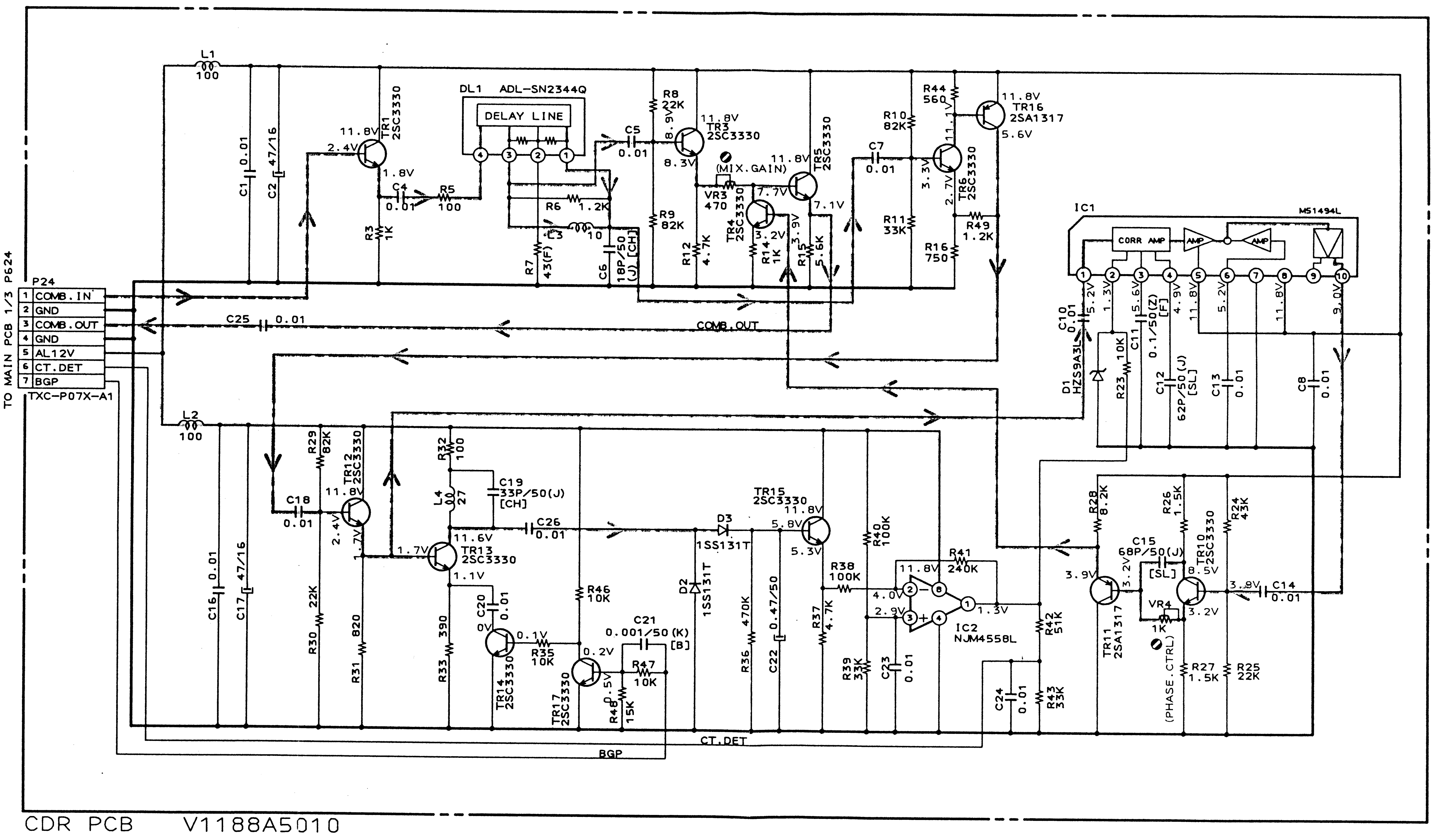

TO IN/OUT (C) PCB P343
P143
9 R.R.IN
8 R.L.IN
7 A.IDL12V A.IDL 12V
6 AV2.R.IN AV2.R.IN
5 AV2.L.IN AV2.L.IN
4 A.GND A.GND
3 R.V.IN NC
2 V.GND V.GND
1 AV2.V.IN AV2.V.IN
(EA-D ONLY) (EXCEPT EA-D)
R101 100
R102 100
C101 47/16
C102 0.01
D101 1SS131T-77
D102 1SS131T-77
C103 0.01
TR101 2SC3330
12.0V
5.7V
5.1V
R104 22K
C104 100/16
R103 1K
R105 22K
EA-D ONLY
R115 100
R106 75
EXCEPT EA-D
PJ101
VIDEO INPUT
PJ101
VIDEO INPUT
EA-D ONLY
R107 100K
TR102 2SC3330
12.0V
6.6V
6.0V
R108 2.7K
R109 150K
C105 1/50
EA-D, EDG ONLY
JS102
R110 330
EXCEPT EA-D, EDG
R116 100
EA-D ONLY
C106 470P
C107 470P
L101 22
JS103
EXCEPT EA-D
PJ102
AUDIO LEFT INPUT
PJ102
AUDIO LEFT INPUT
EA-D ONLY
R111 100K
TR103 2SC3330
12.0V
6.6V
6.0V
R112 2.7K
R113 150K
C108 1/50
JS101
EA-D, EDG ONLY
R114 330
EA-D ONLY
R117 100
C109 470P
C110 470P
EXCEPT EA-D, EDG
EXCEPT EA-D
PJ103
AUDIO RIGHT INPUT
PJ103
AUDIO RIGHT INPUT
EA-D ONLY
FRONT PCB V1214A504B

B (POWER SUPPLY) LINE
AUDIO IN SIGNAL LINE
VIDEO IN SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF
ALL ELECTROLYTIC CAPACITOR IN μF/WV

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE SPEED: SP)

FRONT
SCHEMATIC DIAGRAM
No.18-13 V121412M
A3


L1 100
C1 0.01
C2 47/16
TR1 2SC3330
11.8V
2.4V
1.8V
C4 0.01
R5 100
R3 1K
DL1 ADL-SN2344Q
DELAY LINE
R6 1.2K
L3 10
R7 43(F)
C6 18P/50 (J) [CH]
C5 0.01
R8 22K
8.9V
TR3 2SC3330
11.8V
8.3V
(MIX.GAIN)
VR3 470
R9 82K
R12 4.7K
TR4 2SC3330
7.7V
3.2V
R14 1K
TR5 2SC3330
11.8V
7.1V
3.9V
R15 5.6K
C7 0.01
R10 82K
R11 33K
R44 560
11.1V
TR16 2SA1317
11.8V
5.6V
TR6 2SC3330
3.3V
2.7V
R49 1.2K
R16 750
IC1
M51494L
CORR AMP
AMP
AMP
5.2V
1.3V
5.6V
4.9V
11.8V
5.2V
11.8V
9.0V
C10 0.01
C11 0.1/50(Z) [F]
D1 HZS9A3L
R23 10K
C12 62P/50(J) [SL]
C13 0.01
C8 0.01
P24
1 COMB.IN
2 GND
3 COMB.OUT
4 GND
5 AL12V
6 CT.DET
7 BGP
TXC-P07X-A1
TO MAIN PCB 1/3 P624
C25 0.01
COMB.OUT
L2 100
C16 0.01
C17 47/16
R29 82K
TR12 2SC3330
11.8V
C18 0.01
2.4V
1.7V
R30 22K
R31 820
R32 100
L4 27
C19 33P/50(J) [CH]
11.6V
C26 0.01
1.7V
TR13 2SC3330
1.1V
R33 390
C20 0.01
0V
0.1V
TR14 2SC3330
R35 10K
R46 10K
0.2V
0.5V
TR17 2SC3330
R48 15K
C21 0.001/50(K) [B]
R47 10K
D3 1SS131T
D2 1SS131T
R36 470K
C22 0.47/50
TR15 2SC3330
11.8V
5.8V
5.3V
R37 4.7K
R40 100K
R38 100K
R39 33K
C23 0.01
R41 240K
11.8V
4.0V
2.9V
1.3V
IC2 NJM4558L
R42 51K
C24 0.01
R43 33K
R28 8.2K
3.9V
TR11 2SA1317
3.2V
C15 68P/50(J) [SL]
R26 1.5K
TR10 2SC3330
8.5V
VR4 1K
3.2V
(PHASE.CTRL)
R27 1.5K
R24 43K
R25 22K
3.9V
C14 0.01
CT.DET
BGP
CDR PCB V1188A5010

——— B (POWER SUPPLY) LINE

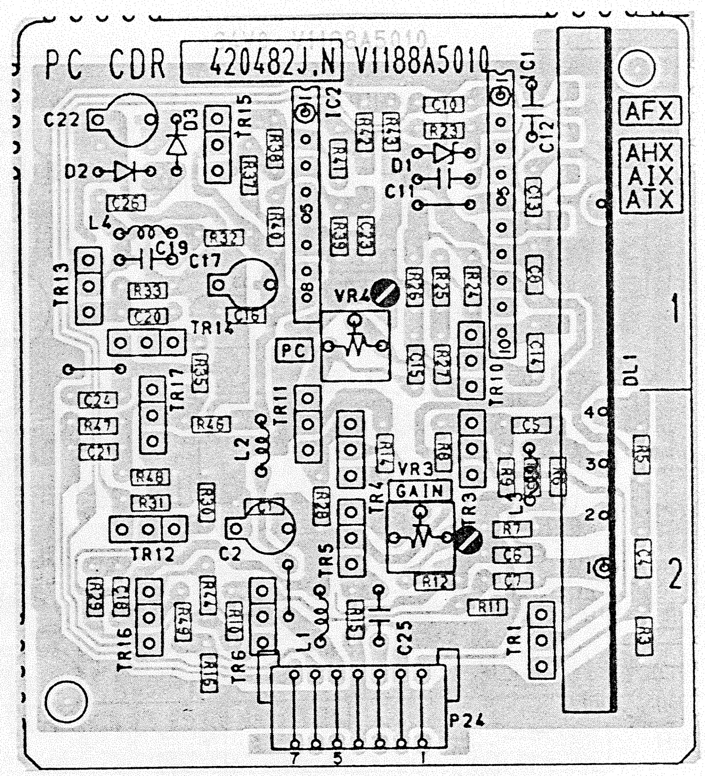
– – – – PB CHROMA SIGNAL LINE

——– ——— CROSSTALK OR NON-CORELATED SIGNAL LINE

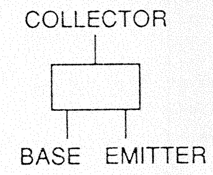
NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/8W (J)
ALL CAPACITORS IN μF (P=PF) 16WV (N)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
ALL INDUCTORS IN μH (J)

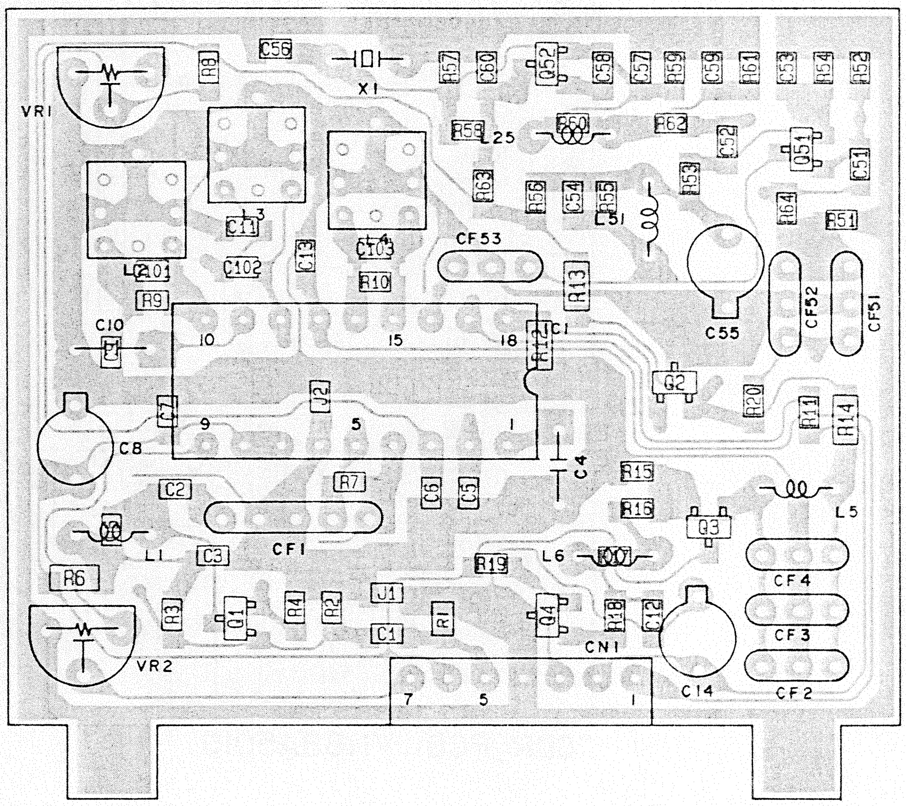
INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE USED: PAL RECORDED TAPE)

VS-G737EOG-D
CDR
SCHEMATIC DIAGRAM
No.18-14 V118410F
A3

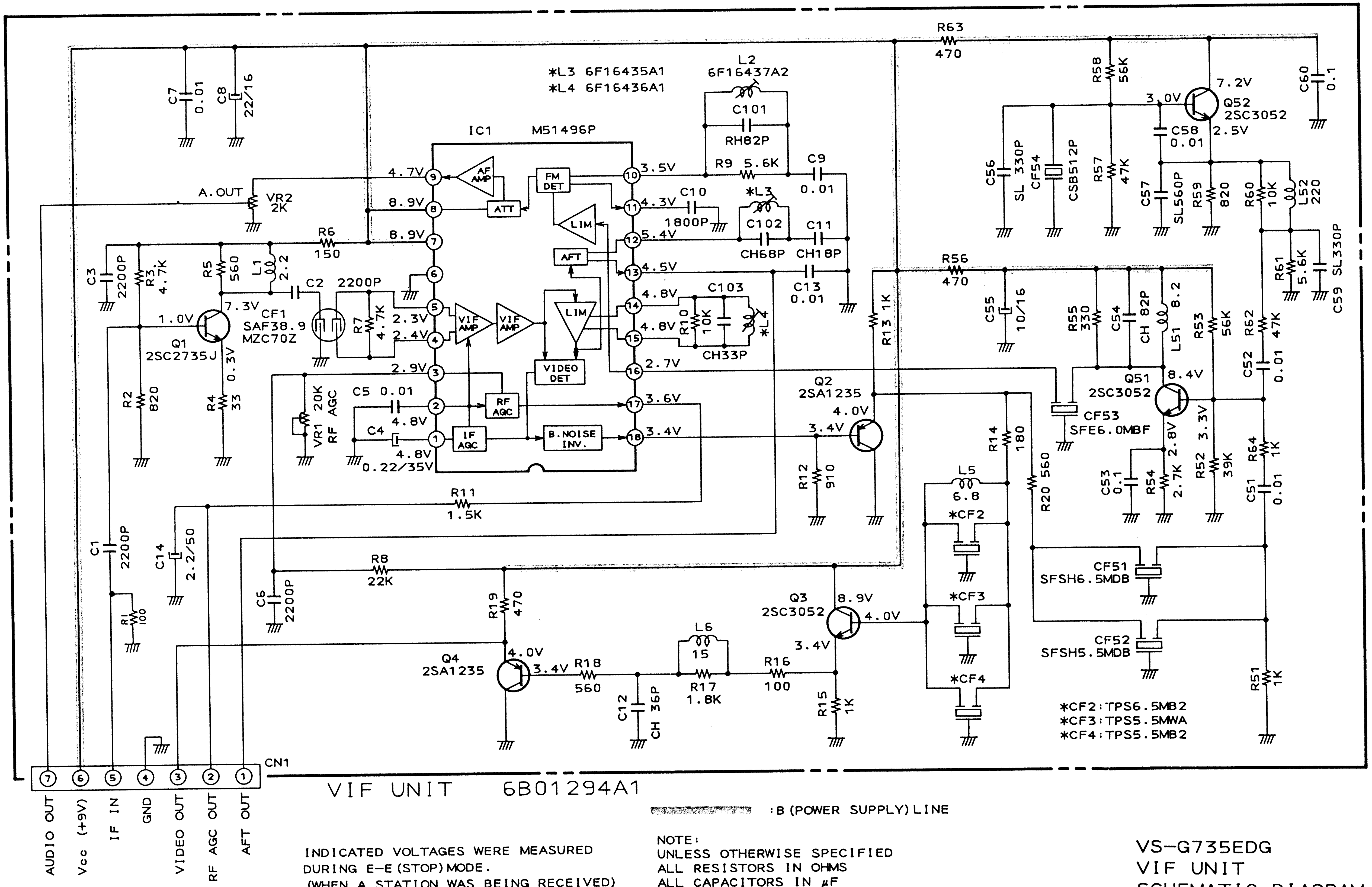

PC CDR
420482J.N
V1188A5010
C1
C22
D3
TR15
IC2
C10
R23
D1
C11
C12
AFX
AHX
AIX
ATX
D2
C26
L4
C19
C17
R32
TR13
R33
C20
TR14
C16
VR4
PC
1
DL1
C24
R47
C21
TR17
R46
TR11
L2
R48
R31
R30
C2
TR12
TR5
TR4
VR3
GAIN
TR3
R7
C6
C7
R11
R12
4
3
2
1
2
TR1
TR16
TR6
L1
C25
P24
7
5
1

CDR PCB V1188A5010


COLLECTOR
BASE
EMITTER


VR1
C56
R8
X1
R57
C60
Q52
C58
C57
R59
C59
R61
C53
R54
R52
R58
L25
R60
R62
C52
Q51
C51
R63
R56
C54
R55
L51
R53
R64
R51
L3
C11
L4
C103
L2
C101
C102
C13
R10
CF53
R13
C55
CF52
CF51
R9
C10
C1
10
15
18
IC1
R12
Q2
R20
R11
R14
C7
J2
9
5
1
C8
C4
R15
R16
L5
Q3
C2
R7
C6
C5
CF1
L1
C3
L6
R19
CF4
R6
J1
R3
Q1
R4
R2
R1
Q4
R18
C12
CN1
CF3
VR2
C1
C14
CF2
7
5
1

VIF UNIT 6B01294A1

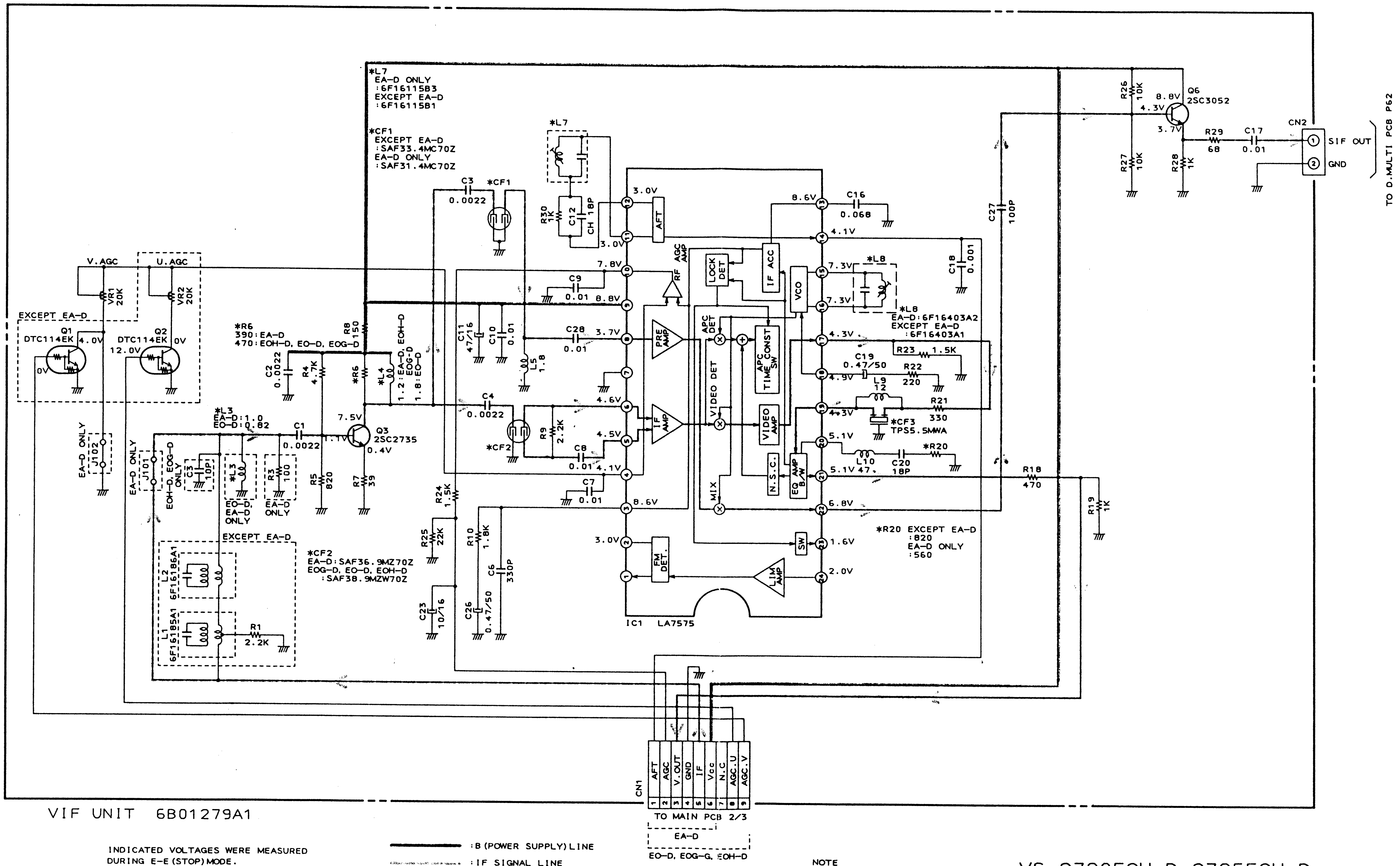

*L3 6F16435A1
*L4 6F16436A1
IC1 M51496P
L2 6F16437A2
C101 RH82P
R9 5.6K
C9 0.01
C10 1800P
*L3
C102 CH68P
C11 CH18P
C13 0.01
C103 CH33P
R10 10K
*L4
C7 0.01
C8 22/16
A.OUT
VR2 2K
R6 150
C3 2200P
R3 4.7K
R5 560
L1 2.2
C2 2200P
CF1 SAF38.9 MZC70Z
R7 4.7K
Q1 2SC2735J
R2 820
R4 33
C5 0.01
C4 0.22/35V
VR1 20K RF AGC
AF AMP
ATT
FM DET
LIM
AFT
VIF AMP
VIF AMP
LIM
VIDEO DET
RF AGC
IF AGC
B.NOISE INV.
4.7V
8.9V
8.9V
7.3V
1.0V
0.3V
2.3V
2.4V
2.9V
4.8V
4.8V
3.5V
4.3V
5.4V
4.5V
4.8V
4.8V
2.7V
3.6V
3.4V
R11 1.5K
R8 22K
C1 2200P
C14 2.2/50
C6 2200P
R1 100
R19 470
Q4 2SA1235
4.0V
3.4V
R18 560
C12 CH 36P
L6 15
R17 1.8K
R16 100
Q3 2SC3052
8.9V
4.0V
3.4V
R15 1K
Q2 2SA1235
4.0V
3.4V
R12 910
R13 1K
R63 470
R56 470
C55 10/16
R58 56K
Q52 2SC3052
3.0V
7.2V
2.5V
C58 0.01
C56 SL 330P
CF54 CSB512P
R57 47K
C57 SL560P
R59 820
R60 10K
L52 220
C60 0.1
R61 5.6K
C59 SL330P
R55 330
C54 CH 82P
L51 8.2
R53 56K
R62 47K
C52 0.01
Q51 2SC3052
8.4V
CF53 SFE6.0MBF
2.8V
3.3V
C53 0.1
R54 2.7K
R52 39K
R64 1K
C51 0.01
R14 180
R20 560
L5 6.8
*CF2
*CF3
*CF4
CF51 SFSH6.5MDB
CF52 SFSH5.5MDB
R51 1K
*CF2:TPS6.5MB2
*CF3:TPS5.5MWA
*CF4:TPS5.5MB2
CN1
AUDIO OUT
Vcc (+9V)
IF IN
GND
VIDEO OUT
RF AGC OUT
AFT OUT
VIF UNIT 6B01294A1

▨ :B (POWER SUPPLY) LINE

INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.
(WHEN A STATION WAS BEING RECEIVED)

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF
ALL INDUCTOR IN μH (K)

VS-G735EDG
VIF UNIT
SCHEMATIC DIAGRAM
No.18-15 V120909F
A3


*L7
EA-D ONLY
:6F16115B3
EXCEPT EA-D
:6F16115B1
*CF1
EXCEPT EA-D
:SAF33.4MC70Z
EA-D ONLY
:SAF31.4MC70Z
V.AGC
U.AGC
VR1 20K
VR2 20K
EXCEPT EA-D
Q1 DTC114EK
Q2 DTC114EK
4.0V
12.0V
0V
*R6
390:EA-D
470:EOH-D, EO-D, EOG-D
R8 150
C2 0.0022
R4 4.7K
*L4
1.2:EA-D, EOH-D
EOG-D
1.8:EO-D
*L3
EA-D:1.0
EO-D:0.82
C1 0.0022
Q3 2SC2735
7.5V
1.1V
0.4V
R5 820
R7 39
J102
EA-D ONLY
J101
EOH-D, EOG-D ONLY
C3 10P
EO-D, EA-D ONLY
R3 100
EA-D ONLY
L2 6F16186A1
L1 6F16185A1
R1 2.2K
*CF2
EA-D:SAF36.9MZ70Z
EOG-D, EO-D, EOH-D
:SAF38.9MZW70Z
C3 0.0022
C11 47/16
C10 0.01
C28 0.01
L5 1.8
C4 0.0022
R9 2.2K
C8 0.01
C7 0.01
C9 0.01
R30 1K
C12 CH 18P
R24 1.5K
R25 22K
R10 1.8K
C6 330P
C23 10/16
C26 0.47/50
AFT
RF AGC AMP
PRE AMP
IF AMP
APC DET
VIDEO DET
APC TIME CONST SW
LOCK DET
IF ACC
VCO
VIDEO AMP
N.S.C.
EQ AMP B/W
MIX
SW
FM DET.
LIM AMP
IC1 LA7575
3.0V
7.8V
8.8V
3.7V
4.6V
4.5V
4.1V
8.6V
3.0V
8.6V
4.1V
7.3V
7.3V
4.3V
4.9V
4.3V
5.1V
5.1V
6.8V
1.6V
2.0V
C16 0.068
C18 0.001
*L8
*L8
EA-D:6F16403A2
EXCEPT EA-D
:6F16403A1
R23 1.5K
C19 0.47/50
R22 220
L9 12
R21 330
*CF3 TPS5.5MWA
L10 47
C20 18P
*R20
*R20 EXCEPT EA-D
:820
EA-D ONLY
:560
R18 470
R19 1K
C27 100P
R26 10K
R27 10K
Q6 2SC3052
8.8V
4.3V
3.7V
R29 68
R28 1K
C17 0.01
CN2
SIF OUT
GND
TO D.MULTI PCB P62
CN1
AFT
AGC
V.OUT
GND
IF
Vcc
N.C
AGC.U
AGC.V
TO MAIN PCB 2/3
EA-D
EO-D, EOG-G, EOH-D

VIF UNIT 6B01279A1

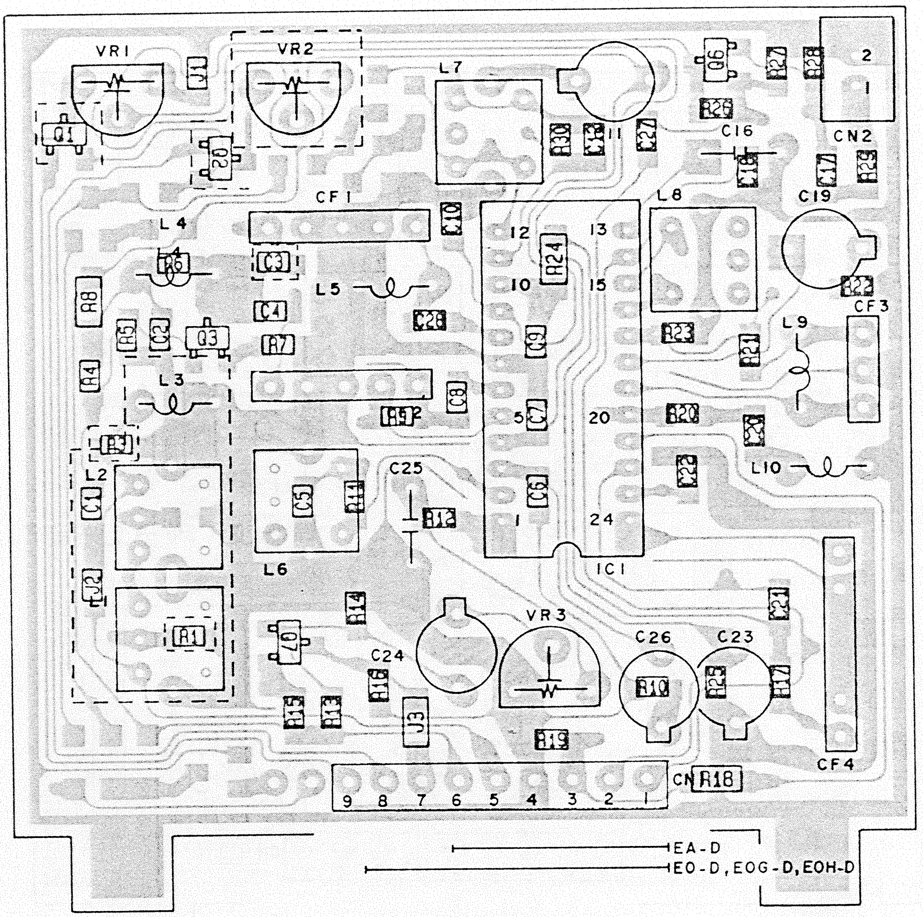
INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.
WHEN A STATION WAS BEING RECEIVED)

▬	:B (POWER SUPPLY) LINE
┄	:IF SIGNAL LINE
┄	:VIDEO SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF
ALL INDUCTORS IN µH

VS-G720EOH-D, G725EOH-D
VS-G735EA-D/EO-D
VS-G737EOG-D
VIF UNIT
SCHEMATIC DIAGRAM

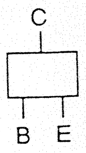
No.18-16 V121414M
A2

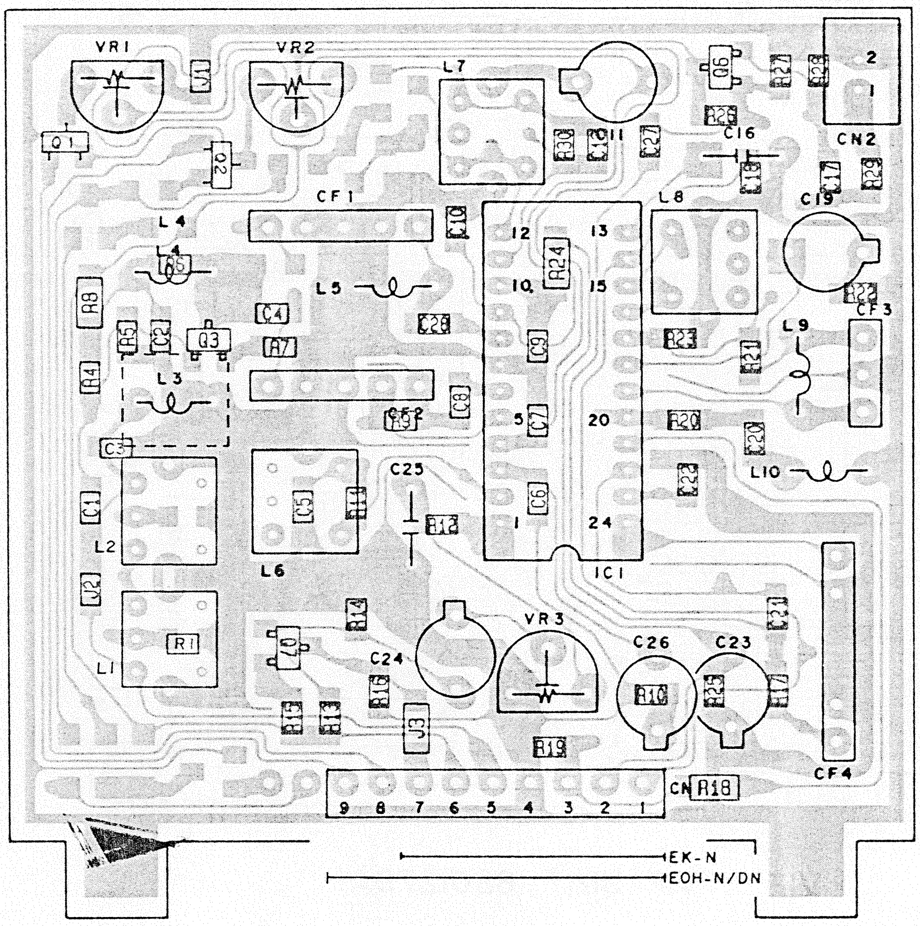

VR1
VR2
J1
Q1
Q2
L7
Q6
R27
R28
2
1
CN2
R26
C16
R30
C12
C11
C18
C17
R29
C19
L8
CF1
C10
12
13
R24
10
15
L4
R6
C3
L5
R8
C4
C28
R5
C2
Q3
R7
C9
R23
L9
R21
CF3
R22
R4
L3
C8
R9
C7
5
20
R20
C20
R3
L2
C1
C5
R11
C25
R12
C6
1
24
C22
L10
L6
IC1
J2
R1
Q7
R14
VR3
C26
C23
C21
C24
R16
R10
R25
R17
R15
R13
J3
R19
CF4
CN
R18
9 8 7 6 5 4 3 2 1
EA-D
EO-D, EOG-D, EOH-D

VIF UNIT 6B01279A1

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

SINGLE CHIP TRANSISTOR

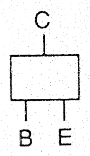


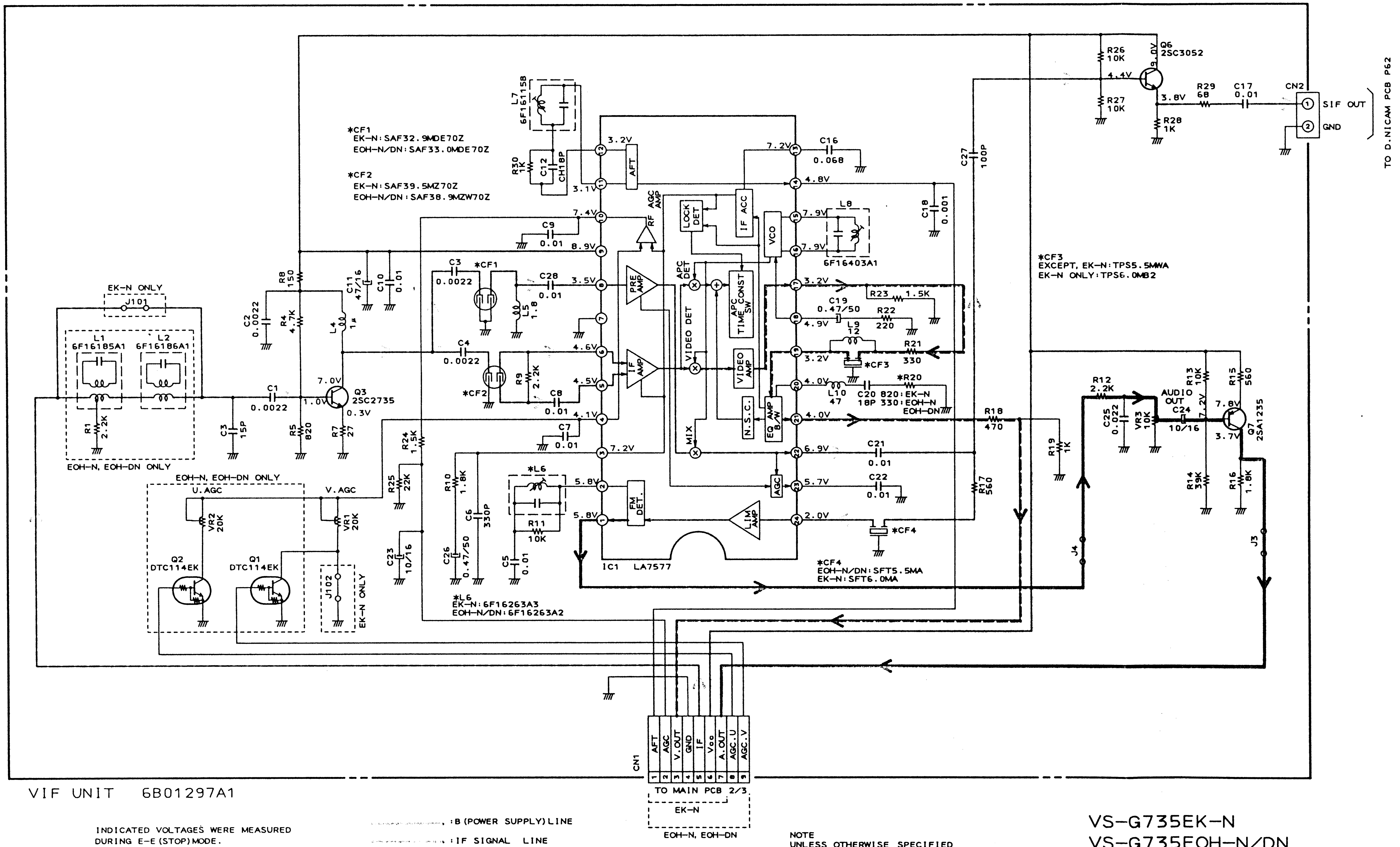

VR1
VR2
J1
Q1
Q2
L7
Q6
R27
R28
R26
C16
CN2
2
1
R30
C11
C18
C17
R29
C19
CF1
L4
L8
C10
12
13
R24
10
15
L5
R8
C4
C28
R22
CF3
R5
C2
Q3
R7
C9
R23
L9
R21
R4
L3
C8
C7
5
20
R20
C20
C3
C25
L10
C1
C5
C6
R12
1
24
L2
L6
IC1
J2
R14
VR3
C21
R1
Q4
C24
C26
C23
L1
R16
R10
R25
R17
R15
R13
J3
R19
CF4
9
8
7
6
5
4
3
2
1
CN
R18
EK-N
EOH-N/DN

VIF UNIT 6B01279A1

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

SINGLE CHIP TRANSISTOR




*CF1
EK-N: SAF32.9MDE70Z
EOH-N/DN: SAF33.0MDE70Z
*CF2
EK-N: SAF39.5MZ70Z
EOH-N/DN: SAF38.9MZW70Z
*CF3
EXCEPT, EK-N: TPS5.5MWA
EK-N ONLY: TPS6.0MB2
*CF4
EOH-N/DN: SFT5.5MA
EK-N: SFT6.0MA
*L6
EK-N: 6F16263A3
EOH-N/DN: 6F16263A2
EK-N ONLY
J101
L1 6F16185A1
L2 6F16186A1
EOH-N, EOH-DN ONLY
R1 2.2K
C3 15P
C1 0.0022
C2 0.0022
R4 4.7K
R8 150
R5 820
R7 27
Q3 2SC2735
7.0V
1.0V
0.3V
L4 1μ
C11 47/16
C10 0.01
C3 0.0022
C4 0.0022
*CF1
*CF2
C28 0.01
L5 1.8
R9 2.2K
C8 0.01
L7 6F16115B
R30 1K
C12 CH18P
C9 0.01
C7 0.01
R24 1.5K
R25 22K
R10 1.8K
C6 330P
C26 0.47/50
C23 10/16
C5 0.01
*L6
R11 10K
U.AGC
V.AGC
VR2 20K
VR1 20K
Q2 DTC114EK
Q1 DTC114EK
J102
EK-N ONLY
IC1 LA7577
AFT
RF AGC AMP
PRE AMP
IF AMP
FM DET.
LIM AMP
AGC
EQ AMP B/W
N.S.C.
VIDEO AMP
VIDEO DET
APC DET
APC TIME CONST SW
MIX
LOCK DET
IF ACC
VCO
3.2V
3.1V
7.4V
8.9V
3.5V
4.6V
4.5V
4.1V
7.2V
5.8V
5.8V
7.2V
4.8V
7.9V
7.9V
3.2V
4.9V
3.2V
4.0V
4.0V
6.9V
5.7V
2.0V
C16 0.068
L8 6F16403A1
C18 0.001
C27 100P
R23 1.5K
C19 0.47/50
R22 220
L9 12
R21 330
*CF3
L10 47
C20 18P
*R20 820: EK-N 330: EOH-N EOH-DN
R18 470
C21 0.01
C22 0.01
R17 560
*CF4
R26 10K
R27 10K
Q6 2SC3052
9.0V
4.4V
3.8V
R28 1K
R29 68
C17 0.01
CN2
① SIF OUT
② GND
TO D.NICAM PCB P62
R12 2.2K
C25 0.022
VR3 10K
AUDIO OUT
C24 10/16
7.2V
R13 10K
R15 560
7.8V
3.7V
Q7 2SA1235
R19 1K
R14 39K
R16 1.8K
J4
J3
CN1
AFT
AGC
V.OUT
GND
IF
Vcc
A.OUT
AGC.U
AGC.V
TO MAIN PCB 2/3
EK-N
EOH-N, EOH-DN

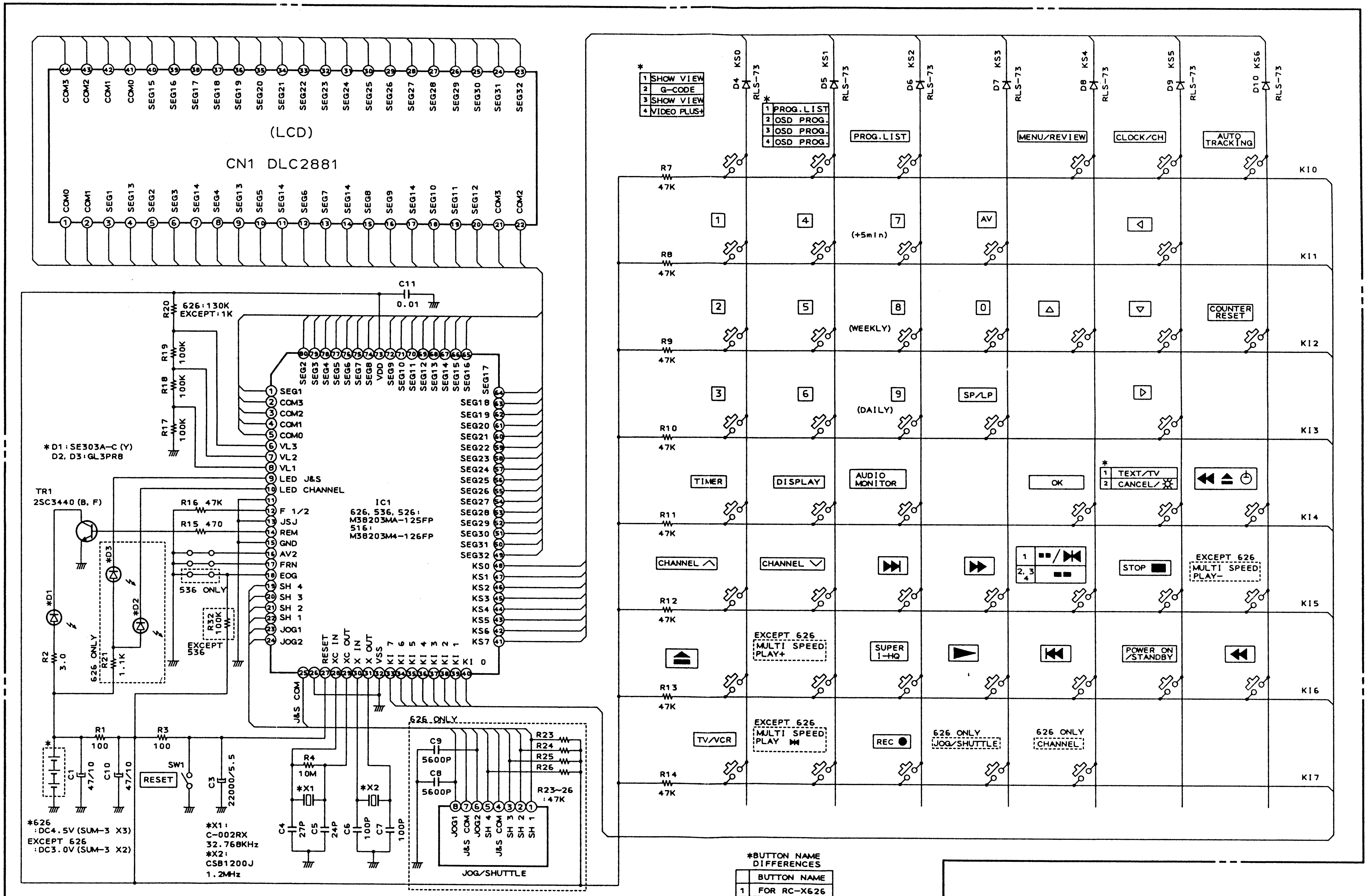
VIF UNIT 6B01297A1

INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.
(WHEN A STATION WAS BEING RECEIVED)

: B (POWER SUPPLY) LINE
: IF SIGNAL LINE
: AUDIO SIGNAL LINE
: VIDEO SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF
ALL INDUCTORS IN μH

VS-G735EK-N
VS-G735EOH-N/DN
VIF UNIT
SCHEMATIC DIAGRAM
No.18-17 V121415M A2


(LCD)
CN1 DLC2881
IC1
626, 536, 526:
M38203MA-125FP
516:
M38203M4-126FP
C11 0.01
R20 626:130K EXCEPT:1K
R19 100K
R18 100K
R17 100K
*D1: SE303A-C (Y)
D2, D3: GL3PR8
TR1 2SC3440 (B, F)
R16 47K
R15 470
536 ONLY
R32 100K EXCEPT 536
626 ONLY
R2 3.0
R21 1.1K
R1 100
R3 100
SW1
RESET
C3 22000/5.5
C1 47/10
C10 47/10
*626 :DC4.5V (SUM-3 X3)
EXCEPT 626 :DC3.0V (SUM-3 X2)
*X1: C-002RX 32.768KHz
*X2: CSB1200J 1.2MHz
R4 10M
C4 27P
C5 24P
C6 100P
C7 100P
626 ONLY
C9 5600P
C8 5600P
R23 R24 R25 R26
R23-26 :47K
JOG/SHUTTLE
KS0 KS1 KS2 KS3 KS4 KS5 KS6
D4 D5 D6 D7 D8 D9 D10 RLS-73
KI0 KI1 KI2 KI3 KI4 KI5 KI6 KI7
R7 R8 R9 R10 R11 R12 R13 R14 47K
SHOW VIEW / G-CODE / SHOW VIEW / VIDEO PLUS+
PROG.LIST / OSD PROG. / OSD PROG. / OSD PROG.
PROG.LIST
MENU/REVIEW
CLOCK/CH
AUTO TRACKING
1 4 7 (+5min) AV
2 5 8 (WEEKLY) 0
COUNTER RESET
3 6 9 (DAILY) SP/LP
TIMER
DISPLAY
AUDIO MONITOR
OK
TEXT/TV
CANCEL/
CHANNEL
CHANNEL
STOP
EXCEPT 626 MULTI SPEED PLAY-
EXCEPT 626 MULTI SPEED PLAY+
SUPER 1-HQ
POWER ON /STANDBY
TV/VCR
EXCEPT 626 MULTI SPEED PLAY
REC
626 ONLY JOG/SHUTTLE
626 ONLY CHANNEL

*BUTTON NAME DIFFERENCES	
	BUTTON NAME
1	FOR RC-X626
2	FOR RC-X536
3	FOR RC-X526
4	FOR RC-X516

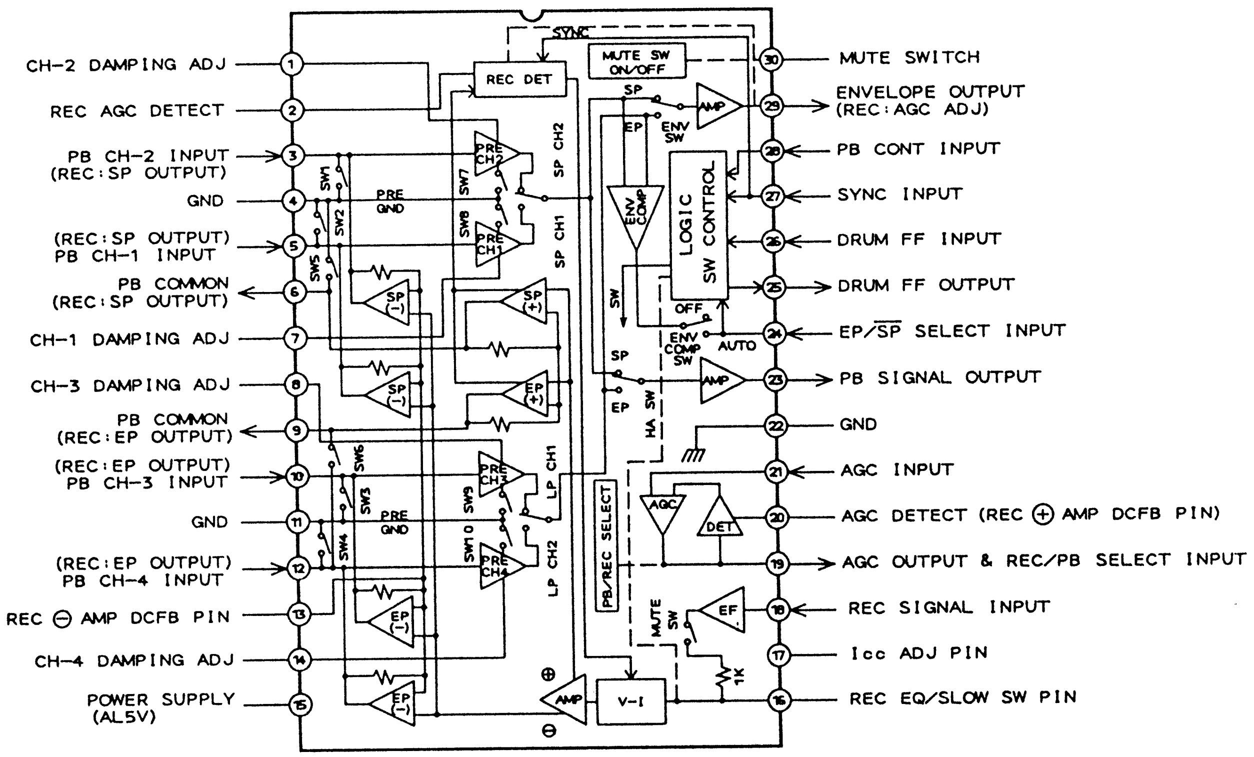
※ THIS SCHEMATIC DIAGRAM IS ONLY FOR REFERENCE. TO AVOID REPLACING INDIVIDUAL PARTS, REPLACE THE ENTIRE UNIT ONLY.

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

RC-X516E, X526E/G
RC-X536E, X626E
REMOTE CONTROL UNIT
SCHEMATIC DIAGRAM

No.18-18 V121416M
A2

AN3386NK-A (4 ch REC/HEAD AMP)


CH-2 DAMPING ADJ
REC AGC DETECT
PB CH-2 INPUT (REC:SP OUTPUT)
GND
(REC:SP OUTPUT) PB CH-1 INPUT
PB COMMON (REC:SP OUTPUT)
CH-1 DAMPING ADJ
CH-3 DAMPING ADJ
PB COMMON (REC:EP OUTPUT)
(REC:EP OUTPUT) PB CH-3 INPUT
GND
(REC:EP OUTPUT) PB CH-4 INPUT
REC ⊖ AMP DCFB PIN
CH-4 DAMPING ADJ
POWER SUPPLY (AL5V)
MUTE SWITCH
ENVELOPE OUTPUT (REC:AGC ADJ)
PB CONT INPUT
SYNC INPUT
DRUM FF INPUT
DRUM FF OUTPUT
EP/SP SELECT INPUT
PB SIGNAL OUTPUT
GND
AGC INPUT
AGC DETECT (REC ⊕ AMP DCFB PIN)
AGC OUTPUT & REC/PB SELECT INPUT
REC SIGNAL INPUT
Icc ADJ PIN
REC EQ/SLOW SW PIN
SYNC
REC DET
MUTE SW ON/OFF
SP
EP
ENV SW
AMP
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
SW10
PRE GND
PRE CH2
PRE CH1
PRE CH3
PRE CH4
SP CH2
SP CH1
LP CH1
LP CH2
SP (−)
SP (+)
EP (+)
EP (−)
ENV COMP
LOGIC SW CONTROL
SW
OFF
ENV COMP SW
AUTO
HA SW
PB/REC SELECT
AGC
DET
MUTE SW
EF
1K
V-I
⊕
⊖

LOGIC SW CONDITION

LOGIC INPUT				INTERNAL SWITCH CONDITION							IC OUTPUT	
PB CONT ㉘ PIN	LP/SP SELECT ㉔ PIN	DRUM FF IN ㉖ PIN	SLOW SW ⑯ PIN	SW1 & SW2 SP INPUT SW	SW3 & SW4 LP INPUT SW	HSW1	HSW2	HASW	ENV COMP SWITCH	ENV SW	PRE OUTPUT	DRUM FF OUT ㉕ PIN
HIGH (MANUAL)	HIGH (LP.MANU)	HIGH	OPEN	ON	OFF	CONTROLLED BY DRUM FF IN (㉖ PIN) HIGH:CH-2 LOW:CH-1	CONTROLLED BY DRUM FF IN (㉖ PIN) HIGH:CH-3 LOW:CH-4	LP SIDE	OFF	LP SIDE	CH 3	LOW
		LOW									CH 4	HIGH
	LOW (SP.MANU)	HIGH		OFF	ON			SP SIDE		SP SIDE	CH 2	
		LOW									CH 1	LOW
TYP. (AUTO)	ENV COMP OUTPUT HIGH /LP1	HIGH			OFF			LP SIDE	AUTO	LP SIDE	CH 3	LOW
		LOW									CH 4	HIGH
	ENV COMP OUTPUT LOW /SP1	HIGH						SP SIDE			CH 2	
		LOW									CH 1	LOW
LOW (STILL & SLOW)	HIGH	HIGH						LP SIDE	OFF		CH 3	LOW
		LOW						SP SIDE			CH 1	
	LOW	HIGH									CH 2	HIGH
		LOW						LP SIDE			CH 4	
	HIGH	HIGH	LOW								CH 3	LOW
		LOW									CH 4	HIGH
	LOW	HIGH						SP SIDE			CH 2	
		LOW									CH 1	LOW

* SW5 ~ SW10 : ALWAYS ON WHEN PB MODE

AN3558FBS (Y/C SIGNAL PROCESSOR)

PIN No.	PORT NAME	I/O	FUNCTION
1	MOD IN	I	REC FM modulator input pin.
2	W/C	–	For white clip level adjustment.
3	MDE OUT	O	Main de-emphasis output pin.
4	MDE PEAK	–	For main de-emphasis peaking control.
5	Vcc (Y)	–	Power supply (for modulator & RF system).
6	REC FM OUT	O	REC FM modulator output pin.
7	DEM GAIN	–	De-modulator gain control pin.
8	PB FM IN	I	PB FM Y signal input pin.
9	ENV DET	–	PB FM Y signal envelope level detect pin.
10	DOP OUT	O	Dropout pulse output pin.
11	EE/PB/TRICK	–	EE/PB/TRICK select pin (H : EE, M : PB, L : PB TRICK).
12	SP/LP/EP	–	SP/LP/EP select pin (H : EP, M : LP, L : SP).
13	C-KILL DET	–	Colour killer detect pin (L : killer ON).
14	NC CTL	–	Noise canceller (NLC/NC) control pin.
15	SLD	–	Side lock detect pin.
16	REC/PB	–	REC/PB select pin (H : PB-ID off, M : PB-ID on, L : REC).
17	BGP OUT	O	Burst gate pulse output pin.
18	ROT	I	Chroma rotary pulse input pin.
19	MODE SEL	–	LNC mode select pin (H : edit, M : NOR2, L : NOR1).
20	MUTE DET	–	Mute detect pin (L : mute, H : non mute).
21	RAD	–	REC APC detect pin.
22	GND(C)	–	Ground (for VCO).
23	AFC/APC	–	REC AFC/PB APC detect pin.
24	fVCO	–	VCO frequency adjustment pin.
25	fVCO(PAL)	–	fVCO select pin (L : PAL ON).
26	X'TAL(PAL)	–	X'tal connect pin for PAL.
27	X'TAL(N/P)	–	X'tal connect pin for NTSC or PAL. (commom pin)
28	X'TAL(NTSC)	–	X'tal connect pin for NTSC.
29	Vcc(C)	–	Power supply for VCO, VXO system.
30	Ref FH DET C	–	Chroma filter auto adjust detect pin.
31	2fsc	O	2fsc output pin.
32	GND(C)	–	Ground for VXO.
33	CACC DET	–	Chroma ACC detect pin.
34	REC C OUT	O	REC chroma signal output pin.
35	FACC DET	–	Field ACC detect pin for CH-2. (OFF when trick mode)
36	ACC DET	–	ACC detect pin.
37	FACC DET	–	Field ACC detect pin for CH-1. (OFF when trick mode)
38	ACC BAL	–	Capacitor connecting pin for ACC balance.
39	3.58/4.43	–	3.58/4.43 select pin (H : 3.58, L : 4.43).
40	VCC(C)	–	Power supply (for main chroma).
41	PB RF C IN	I	PB low chroma signal input pin.
42	CNR TEST	I	CNR monitor and on/off pin (ON : 3.4 V, OFF : 3.8 V).
43	GND(C)	–	Ground for chroma system.
44	TEST2	–	Test pin 2.
45	BMC	–	Capacitor connecting pin for BM balance.
46	TEST1	–	Test pin 1.
47	CACC-C	–	Capacitor connecting pin for chroma ACC balance.
48	COMB DRV	O	Driving output for comb filter.
49	C IN TH	I	Chroma signal input pin (direct in).
50	C IN COMB	I	Chroma signal input pin (through the COMB filter).
51	CNR DL	I	Input from the CNR delay line.
52	MODE SEL	–	Colour mode select pin (H : MESECAM, M : PAL, L : NTSC).
53	PB C OUT	O	PB chroma signal output pin.
54	Y LPF DET	–	Y LPF fsc detect pin.
55	Y/C MIX	I	PB chroma signal input for Y/C mix.
56	VCC(Y)	–	Power supply for Y signal.
57	V.OUT	O	Composite video signal output pin.
58	AVP	I	Quasi V-sync pulse input pin (H : sync level, M : gray level, L : through).
59	SCL DET	–	Sub clamp detect pin.

AN3558FBS (Y/C SIGNAL PROCESSOR)

PIN No.	PORT NAME	I/O	FUNCTION
60	V.IN	I	Video signal input pin.
61	AGC DET	–	AGC level detect pin.
62	SECAM TH	O	SECAM through output pin.
63	EE ADJ	–	EE video level adjustment pin.
64	HSS OUT	O	H sync separator output pin.
65	SYNC DET	–	Sync separator detect pin.
66	SECAM CLP	I	SECAM clamp input pin.
67	Y LPF OUT	O	Y-LPF output pin.
68	CLP 1 IN	I	Clamp 1 input pin.
69	CLP 2 IN	I	Clamp 2 input pin.
70	CCD IN	O	Output for CCD.
71	YNR DEF	O	YNR diffrential component output pin.
72	CORR DET	I	Correlation detect input pin.
73	GND(Y)	–	Ground for Y signal.
74	CCD AGC DET	–	CCD AGC detect pin.
75	NC LPF	–	LPF pin for Noise Canceller.
76	PICT CTL	–	Picture control pin (L:sharp).
77	NLE/MDE	O	Non linear emphasis / main de-emphasis output pin.
78	CLP 3 IN	I	Clamp 3 input pin.
79	ME FBK	I	Main emphasis feedback input pin.
80	ME OUT	O	Main emphasised signal output pin.

AN3317K (REC/HEAD AMP FOR FM AUDIO)

PIN No.	PORT NAME	I/O	FUNCTION
1	H SW SEL	I	CH-1 and CH-2 head amp select switch control. (H : CH-1, L : CH-2)
2	REC/$\overline{\text{PB}}$ SEL	I	REC/PB select pin. (H : REC, L : PB)
3	REC/$\overline{\text{MUTE}}$ SEL	I	REC/MUTE select pin. (H : REC mode, L : mute)
4	CH1 DUB	–	CH-1 head AMP damping control pin.
5	PB CH1 IN	I	CH-1 PB signal input pin.
6	GND1	–	To be grounded.
7	REC OUT	O	REC signal output pin.
8	PB CH2 IN	I	CH-2 PB signal input pin.
9	CH2 DUB	–	CH2 head AMP damping control pin.
10	REC VCC1	O	+4 V power supply for CH-1 head (REC mode).
11	REC VCC2	O	+4 V power supply for CH-2 head (REC mode).
12	MAIN VCC	–	+5 V power supply of this IC.
13	PEAK DET	–	Capacitor connecting pin for Peak AGC detection.
14	AGC DET	–	Capacitor connecting pin for AGC detection.
15	REC CURR	I	Rec current AMP input pin.
16	PB OUT	O	PB signal output pin.
17	GND2	–	To be grounded.
18	REC AGC	O	REC signal out from AGC circuit.
19	REC LPF	–	Capacitor connecting pin for AGC comparator's LPF.
20	CURR EMPH	–	Current emphasis select pin. (H : over REC, L : normal)
21	REC IN	I	REC FM audio signal input pin.
22	AGC LEVEL	–	AGC level control pin.

AN3963NFBPA (Hi-Fi & NORMAL AUDIO SIGNAL PROCESSOR)

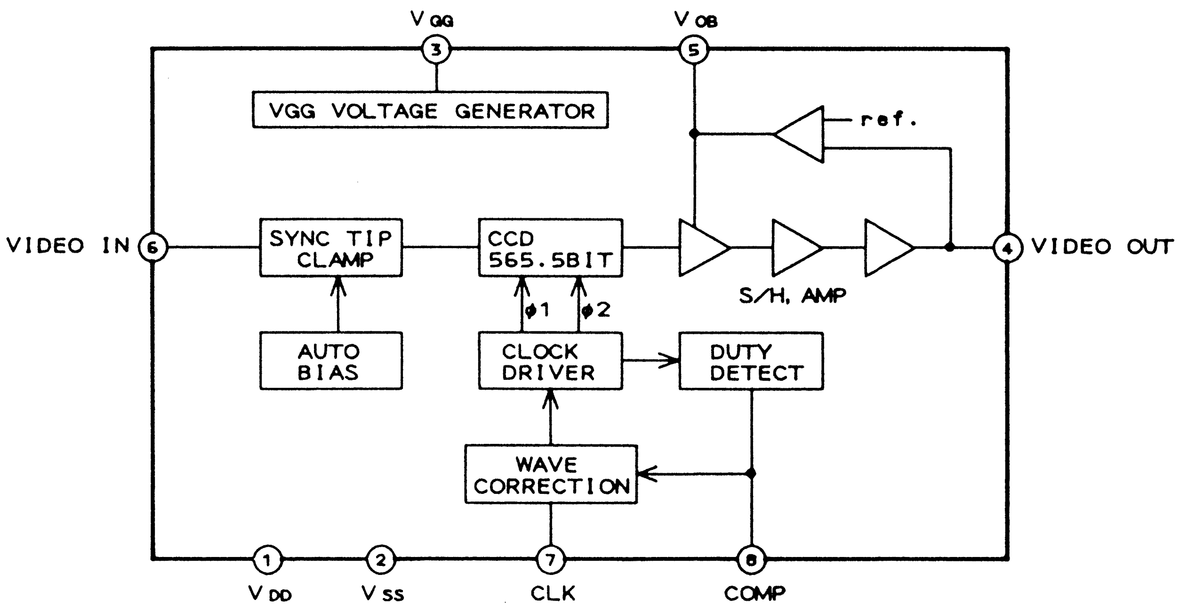
PIN No.	PORT NAME	I/O	FUNCTION
1	VCC2	–	+12 V power supply.
2	TV IN	I	L-CH TV sound input pin.
3	AUX IN	I	L-CH AUX input pin.
4	BS2 IN	I	L-CH BS-2 input pin.
5	BS1 IN	I	L-CH BS-1 input pin.
6	REC VOL	I	L-CH REC input level adjust pin.
7	AGC DET	–	Stereo AGC detection pin.
8	NR DET 1	–	L-CH NR detect 1 pin.
9	NR DET 2	–	L-CH NR detect 2 pin.
10	GND 1	–	L-CH ground pin.
11	NR REF	–	L-CH NR reference pin.
12	CCA OUT	O	L-CH CCA output pin
13	VREF 1	–	A half voltage of the VCC1 (16 pin).
14	EMPHA NF	–	L-CH emphasis/de-emphasis select pin.
15	HOLD C	–	L-CH hold capacitor connecting pin.
16	VCC 1	–	L-CH +5 V power supply.
17	f0 ADJ	I	L-CH f0 (1.4 MHz) adjust pin.
18	FM OUT/BPF MON	O	L-CH REC FM output and BPF monitor pin
19	ENV.DET	O	Envelope detect pin
20	CS IN	I	Chip select signal input pin from SYSCON MI-COM.
21	CLOCK IN	I	Clock input pin from SYSCON MI-COM.
22	DATA IN	O	Data input pin from SYSCON MI-COM.
23	FORCE	O	Hi-Fi PB signal detect pin. (Hi-Fi : H, Normal : L)
24	GND	–	Ground for logic circuit.
25	PB FM IN	I	PB FM signal input pin.
26	VCC	–	+5 V power supply for logic circuit.
27	DELAYD FF	I	Delayed FF input pin
28	GND	–	Ground for BPF.
29	HOLD TIME C	–	Hold time setting pin
30	NOISE DET	–	Noise detection pin
31	FM OUT/BPF MON	O	R-CH REC FM output and BPF monitor pin.
32	f0 ADJ	–	R-CH f0 adjust pin.
33	VCC 1	–	R-CH +5 V power supply.
34	HOLD-C	–	R-CH hold capacitor pin.
35	EMPHA NF	–	R-CH emphasis/de-emphasis select pin.
36	MUTE CTL	–	Muting control pin
37	CCA OUT	O	R-CH CCA output pin.
38	NF REF	–	R-CH NR reference pin.
39	GND 1	–	R-CH ground pin.
40	NR DET 2	–	R-CH NR detect pin 2.
41	NR DET 1	–	R-CH NR detect pin 1.
42	NOR AGC DET	–	Linear audio AGC detection pin.
43	REC IN VOL	I	R-CH REC input level adjust pin.
44	BS 1 IN	I	R-CH BS 1 input pin.
45	BS 2 IN	I	R-CH BS 2 input pin.
46	AUX IN	I	R-CH AUX input pin.
47	TV IN	I	R-CH TV input pin.
48	NOR REC IN	I	Linear audio REC input pin.
49	NOR PB IN	I	Linear audio PB signal input pin (fH trapped).
50	NOR PB OUT	O	Linear audio PB output pin (fH trapped).
51	NOR PB EQ SW	–	Linear audio PB EQ select pin.
52	NOR PB NF	–	Linear audio PB AMP NF pin.
53	NOR PB IN	I	Linear audio PB signal input pin (Normal head).
54	NOR REC NF	–	Linear audio REC AMP EQ pin.
55	NOR REC OUT	O	REC OUT pin for Linear audio (Normal head).
56	GND	–	Ground
57	RF CONV OUT	O	Audio out pin for RF converter.
58	LINE OUT	O	R-CH line out pin.
59	H/P OUT	O	R-CH out for headphone.
60	GND2	–	Ground
61	H/P OUT	O	L-CH out for headphone.
62	LINE OUT	O	L-CH line out pin.
63	VREF 2	–	A half voltage of the VCC2 (1 pin).
64	H/P OUT VOL	–	Headphone AMP level control pin.

NOTE: NR : noise reduction CCA : current controlled amp

LC74760 (CHARACTER GENERATOR)

PIN No	PORT NAME	I/O	FUNCTION
1	Vss	—	Connect the GND
2	XTAL in1	I	14.318 MHz crystal oscillator input
3	XTAL out1	O	14.318 MHz crystal oscillator output
4	H SYNC	O	AFC H sync output
5	XTAL in2	I	17.744 MHz crystal oscillator input
6	XTAL out2	O	17.744 MHz crystal oscillator output
7	V SYNC	O	V. SYNC output
8	$\overline{\text{CS}}$	I	Enable input pin of serial data input
9	SIN	I	Serial data input
10	SCLK	I	Clock input pin for serial data input
11	SECAM	I	SECAM mode select pin (H : SECAM MODE)
12	$\overline{\text{525}}$/625	I	Select pin, 525 or 625 of scanning line
13	$\overline{\text{NTSC}}$/PAL	I	NTSC/PAL SELECT PIN (L : NTSC)
14	$\overline{\text{3.58}}$/4.43	I	3.58MHz or 4.43MHz select input
15	$\overline{\text{RST}}$	I	System reset input
16	CVOUT	O	Composite video signal output
17	VDD2	—	Power supply (+5 V)
18	CVIN	I	Composite video signal input
19	CVCR	I	Chroma signal input for SECAM mode
20	SYNC IN	I	Video signal input of internal sync separator circuit
21	SEPC	—	Adjustment pin of internal sync separator circuit
22	Vss	—	Connect the GND
23	PD OUT	O	AFC control voltage output
24	AM PIN	I	Filter connect pin for AFC circuit
25	AM POUT	O	Filter connect pin for AFC circuit
26	FC	I	AFC control voltage input
27, 28	VCO IN (out)	I/O	Coil and capacitor connecting pin of LC oscillator for VCO.
29	SYNC DET	O	Exclusive NOR logic output of H SYNC AND C SYNC
30	VDD1	—	Digital power supply (+5 V)

LC8992 (CCD 1H DELAY LINE)



M37770M4H-163/165FP (SERVO/SYSCON MI-COM FOR PAL Hi-Fi MODEL)

PIN No.	PORT NAME	I/O	FUNCTION
1,35,84	VCC	–	+5 V power supply.
2	$\overline{\text{FLY.ES}}$	O	Flying erase OSC control output.
3	Vss	–	To be ground
4	TRP	I	Take up reel pulse input
5	SRP	I	Supply reel pulse input.
6	SEC.MES	O	SECAM & MESECAM select output. (PAL : L)
7,60	$\overline{\text{NTSC}}$	O	NTSC mode select output. (NTSC : L)
8	C.SYNC	I	Cmposite sync input. (for video judge)
9	$\overline{\text{SP}}$	O	Tape speed judge output. (except SP : H)
10,50 74,103	VSS	–	Ground.
11	$\overline{\text{EE}}$	O	EE line control pin.
12	VP	O	Quasi V pulse signal output.
13	$\overline{\text{INSERT}}$	O	Mute control output for recording section (mute : H)
14	$\overline{\text{REC.S}}$	O	REC start control output. (real time output)
15	V.SWP	O	Video head switching pulse.
16	PICT	O	Picture quality control output.
17	A.SWP	O	Hi-Fi head switching pulse output
18	$\overline{\text{A.OSC}}$	O	Linear audio bias OSC on/off control.
20	A.REC.H	O	REC/PB select control output for Hi-Fi audio section. (L : Hi-Fi REC)
21	A.REC/$\overline{\text{MUTE}}$	O	Rec mute control output for Hi-Fi audio section. (L : mute)
22	Hi-Fi DET	I	Hi-Fi/normal detect input. (Hi-Fi : L)
24	$\overline{\text{SAT}}$	O	Satellite select control output. (satellite : L)
25	DEC CTL	O	Decoder on/off switching output.
26	WS.J	I	Wide/normal screen judge input.
27	$\overline{\text{F.E}}$	O	Full track erase OSC control output.
28	WS/$\overline{\text{NOR}}$	O	Wide screen/normal screen select output. (wide : H)
29	REC SAF	I	REC safety sw input. (L : REC enable)
30	S.PACK	I	S-VHS tape detect switch input. (H : S-VHS tape)
31~ 34	RSW1~ 4	I	Input from the rotary (mecha. position detect) switch.
36	$\overline{\text{SLOW PB}}$	O	Head select switch control when trick mode. (L : normal PB, H : trick mode)
37	$\overline{\text{PB}}$	O	PB mode control pin.
38	$\overline{\text{TRQUP}}$	O	Loading motor torque control.
39	LM F	O	Loading motor direction control (forward).
40	LM R	O	Loading motor direction control (reverse).
41	Hi-Fi CS	O	Chip select output for Hi-Fi audio IC
42	Hi-Fi CLK	O	Clock output for Hi-Fi audio IC
43	Hi-Fi DATA	O	Data output for Hi-Fi audio IC
44	NUB	–	To be grounded.
45	NUA	–	To be grounded.
46	$\overline{\text{RESET}}$	I	Reset input.
47	X IN	I	X'tal osc input (f=16 MHz).
48	X OUT	O	X'tal osc output (f=16 MHz).
49	CLK SEL	I	Clock select input. (L : requires sub clock)
51	XC IN	I	X'tal osc input (f=32.768 kHz).
52	XC OUT	O	X'tal osc output (f=32.768 kHz).
53	INT/$\overline{\text{EXT}}$	O	Input select control output.
54	$\overline{\text{AV1}}$/AV2	O	AV1/AV2 external input selection control output. (L : AV1)
55	$\overline{\text{TV}}$/VCR	O	TV/VIDEO select control output. (L : TV, H : VIDEO)
56	I^2 C SDA	I/O	I^2 C bus serial data in/out.
57	I^2 C SCL	O	I^2 C bus serial clock in/out.
58	A.MUTE	O	Audio mute control. (H : mute)
59	T.MUTE	O	Tuner mute control. (H : mute)
61	$\overline{\text{FINE}}$/NOR	O	Fine/normal tuning select control output
62	AFT-L	I	AFT low level judge input.
63	$\overline{\text{AFT-H}}$	I	AFT high level judge input.
64	$\overline{\text{AFT}}$	O	AFT on/off control output. (L : AFT on)
67	V.SYNC OUT	O	V sync negative output.
68	BAND B	O	Tuner band select output.

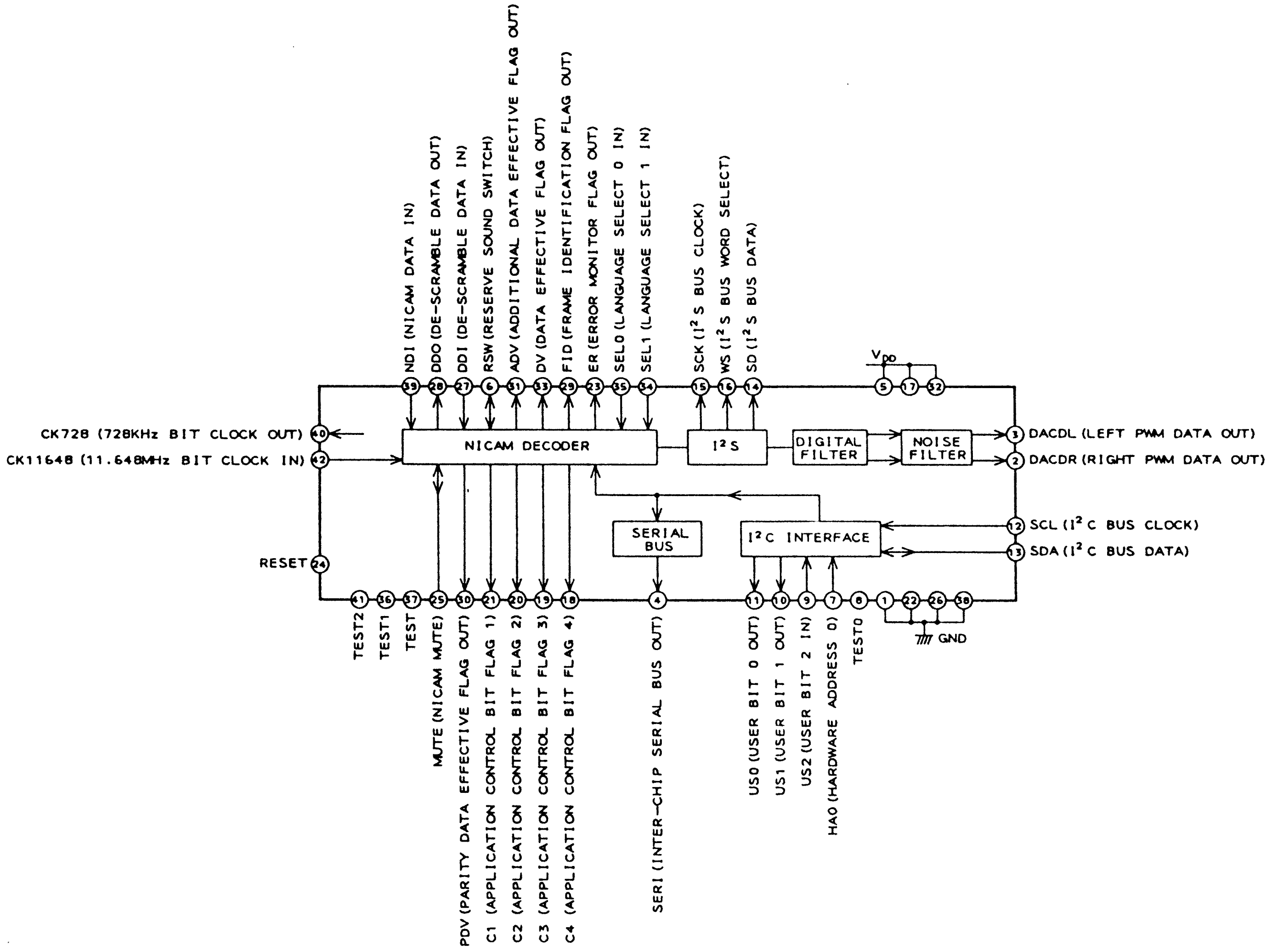
M37770M4H-163/165FP (SERVO/SYSCON MI-COM FOR PAL Hi-Fi MODEL)

PIN No.	PORT NAME	I/O	FUNCTION
69	BAND A	O	Tuner band select output.
70	$\overline{\text{HS}}$	O	Capstan motor high speed control. (FF & RWD : L)
71	$\overline{\text{F}}$/R	O	Capstan motor direction control. (H : reverse)
72	$\overline{\text{CTL GAIN}}$	O	CTL signal level control output. (FF & RWD : "L")
73	CM STOP	O	Capstan motor stop control. (H : motor stop)
75	TU POWER	O	Tuner power supply on/off control. (H : on)
76	$\overline{\text{SEN POW}}$	O	End & start sensor's power supply control.
77	AL	O	AL power supply line control output.
78	CTL RET	O	PB CTL reset control out
79	SYS SO	O	Serial data out to OPE MI-COM.
80	SYS SI	I	Serial data in from OPE MI-COM.
81	SYS CLK	I	Serial clock input from OPE MI-COM.
82	SYS RDY	O	Data transfer ready output to OPE MI-COM.
83	$\overline{\text{SHORT}}$	I	Power supply abnormal condition detect input. (L : REG voltage is too high.)
85	AMP VCC	–	+5 V power supply for analog AMP.
86	AMP VREF	–	Voltage reference for analog AMP.
87	CLAMPR	I	CTL clamp AMP negative input.
88	CLAMPF	I	CTL clamp AMP positive input.
89	AMPC	–	Load capacitor connecting pin for CTL AMP.
90	CTLAMP OUT	O	CTL AMP output.
91	CTLAMP IN	I	CTL AMP input.
92	CTL+SWOUT	O	CTL internal sw control.
93	CTL+	I	CTL positive side input.
94	CTL-	I	CTL negative side input.
95	C	–	Capacitor connecting pin for REC CTL signal's trapezoid wave.
96	CP FG	I	Capstan motor FG signal input.
97	DM FG	I	Drum motor FG signal input.
98	DM PG	I	Drum motor PG signal input.
99	AMP VSS	–	Ground for analog system (FG, PG & CTL AMP).
100	A.VCC	–	+5 V power supply (for analogue system circuit).
102	VREF	–	Servo voltage reference.
104	FINE VT	O	Fine tuning voltage output. (D/A out)
105	V.REC,VOL 2	O	CH-2 video head REC current control output. (D/A)
106	V.REC,VOL 1	O	CH-1 video head REC current control output. (D/A)
107	ANC.VOL	O	Noise cancel value output. (D/A)
108	Hi-Fi ENV	I	Hi-Fi envelope detect signal input for auto tracking
109	LNC	O	Line noise canceller control (L/M/H).
111	E/P/T	O	EE/PB/TRICK mode select control (L/M/H).
112	ES	I	End sensor input.
113	INSERT H	O	CTL head control when insert mode.
115	SDP	I	SECAM (MESECAM) detect signal input. (PAL : L)
116	SS	I	Start sensor input.
117	CT DET	I	Cross talk detection voltage input for auto tracking.
118	TUNE	O	Tuning output for I-HQ system (L,M & H).
119	ENV.DET	I	Video envelope detect input.
120	V.SYNC IN	I	V.SYNC input.
121	HEAD CTL	O	Video head select control output when trick mode.
122	$\overline{\text{NP}}$	O	Color system convert control out (NTSC to PAL : L)
123	C.FG MON	O	Amplified CM FG signal out for monitoring.
124	D.FG MON	O	Amplified CM FG signal out for monitoring.
125	CTL MON	–	Amplified CTL signal out for monitoring.
126	TUNER PWM	O	Tuning voltage output for tuner.
127	CM PWM	O	Speed & phase error output for capstan motor.
128	DM PWM	O	Speed & phase error output for capstan motor.

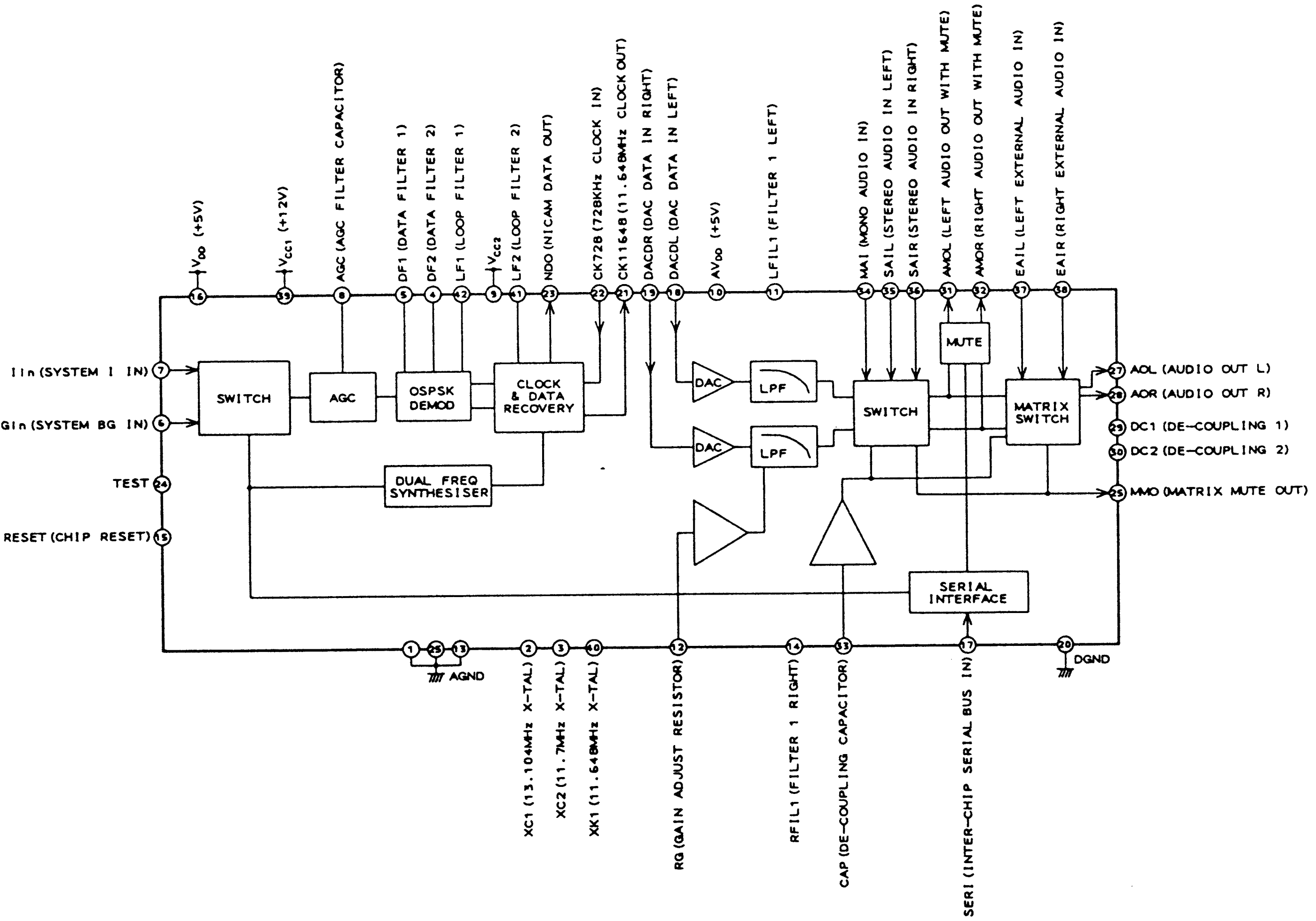
SAA5233 (VPS/PDC DATA DECODER)

PIN No.	PORT NAME	I/O	FUNCTION
1	MOD IN	I	REC FM modulator input pin.
2	BLACK	–	Video black level storage pin connected to ground via a 0.1 µF capacitor.
3	IREF	I	Reference current input pin.
4	VDD	–	+5 V power supply.
5	Vss	–	Ground.
6	OSCOUT	O	27 MHz crystal oscillator output.
7	OSCIN	I	27 MHz crystal oscillator input.
8	OSCGND	–	27 MHz crystal oscillator ground.
9	TEST S	–	Ground in normal operation.
10	TEST A	–	Ground in normal operation.
11	TP1	–	Ground in normal operation.
12	SCL	I	Serial clock input for I² C control bus.
13	SDA	I/O	Serial data port for I² C control bus.
14	AO	–	Least significant bit of I² C address.
15	INT	O	Open drain interrupt output. (Active low)
16	TP2	–	Ground in normal operation.

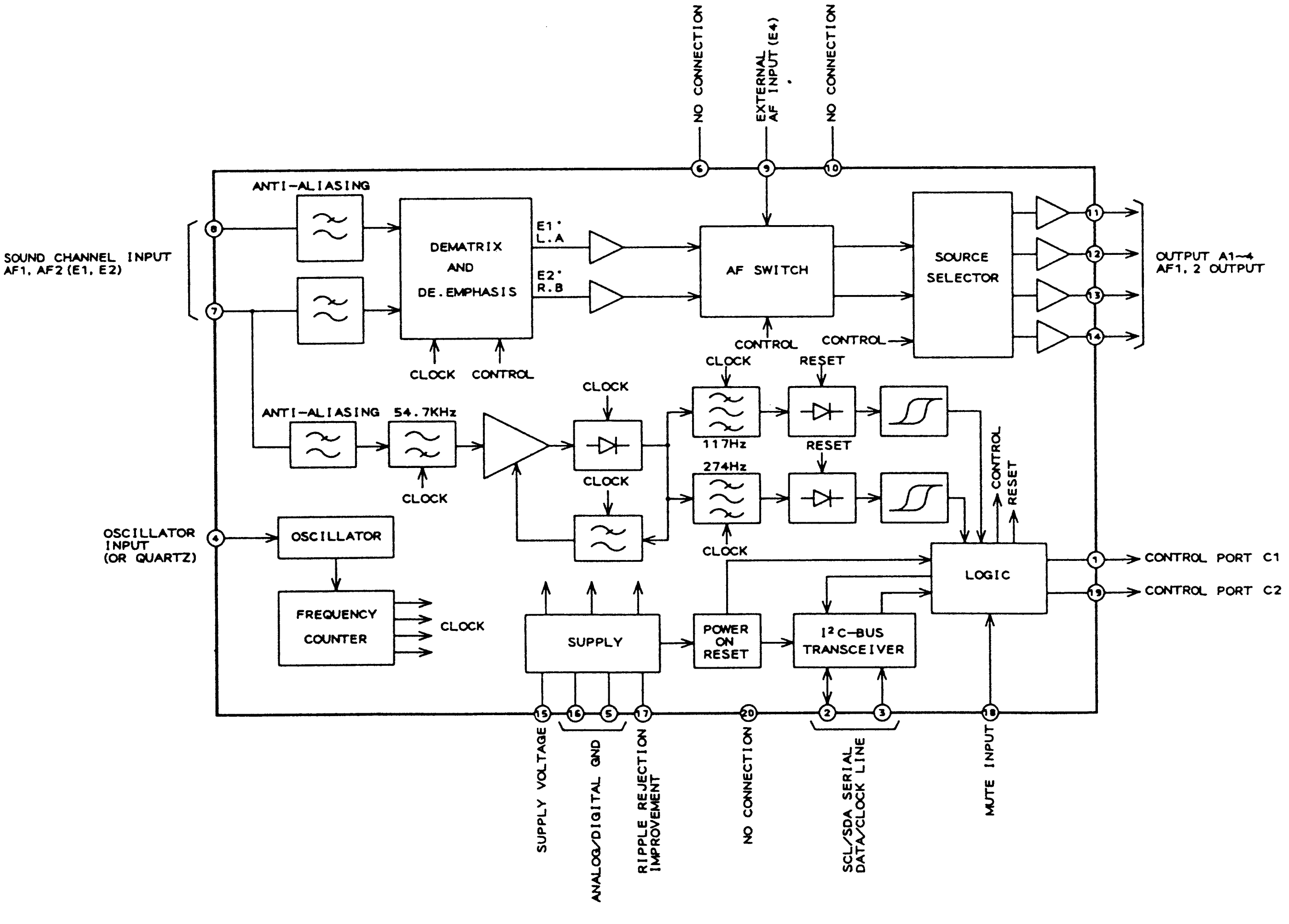
TDA8204 (NICAM DECODER)


NDI (NICAM DATA IN)
DDO (DE-SCRAMBLE DATA OUT)
DDI (DE-SCRAMBLE DATA IN)
RSW (RESERVE SOUND SWITCH)
ADV (ADDITIONAL DATA EFFECTIVE FLAG OUT)
DV (DATA EFFECTIVE FLAG OUT)
FID (FRAME IDENTIFICATION FLAG OUT)
ER (ERROR MONITOR FLAG OUT)
SEL0 (LANGUAGE SELECT 0 IN)
SEL1 (LANGUAGE SELECT 1 IN)
SCK (I² S BUS CLOCK)
WS (I² S BUS WORD SELECT)
SD (I² S BUS DATA)
VDD
39 28 27 6 31 33 29 23 35 34 15 16 14 5 17 32
CK728 (728KHz BIT CLOCK OUT) 40
CK11648 (11.648MHz BIT CLOCK IN) 42
NICAM DECODER
I² S
DIGITAL FILTER
NOISE FILTER
3 DACDL (LEFT PWM DATA OUT)
2 DACDR (RIGHT PWM DATA OUT)
SERIAL BUS
I² C INTERFACE
12 SCL (I² C BUS CLOCK)
13 SDA (I² C BUS DATA)
RESET 24
41 36 37 25 30 21 20 19 18 4 11 10 9 7 8 1 22 26 38
GND
TEST2
TEST1
TEST
MUTE (NICAM MUTE)
PDV (PARITY DATA EFFECTIVE FLAG OUT)
C1 (APPLICATION CONTROL BIT FLAG 1)
C2 (APPLICATION CONTROL BIT FLAG 2)
C3 (APPLICATION CONTROL BIT FLAG 3)
C4 (APPLICATION CONTROL BIT FLAG 4)
SERI (INTER-CHIP SERIAL BUS OUT)
US0 (USER BIT 0 OUT)
US1 (USER BIT 1 OUT)
US2 (USER BIT 2 IN)
HA0 (HARDWARE ADDRESS 0)
TEST0

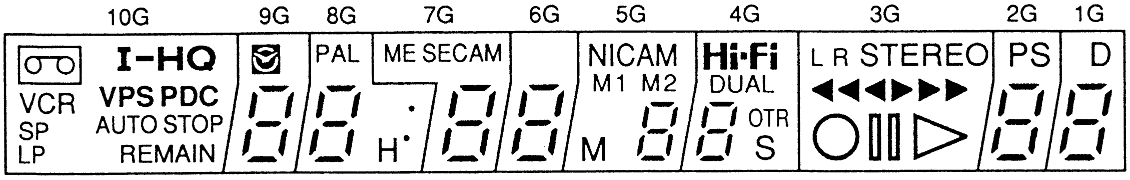
TDA8205 (QPSK DEMODULATOR)

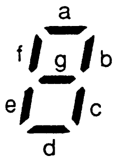

V_{DD} (+5V)
V_{CC1} (+12V)
AGC (AGC FILTER CAPACITOR)
DF1 (DATA FILTER 1)
DF2 (DATA FILTER 2)
LF1 (LOOP FILTER 1)
V_{CC2}
LF2 (LOOP FILTER 2)
NDO (NICAM DATA OUT)
CK728 (728KHz CLOCK IN)
CK11648 (11.648MHz CLOCK OUT)
DACDR (DAC DATA IN RIGHT)
DACDL (DAC DATA IN LEFT)
AV_{DD} (+5V)
LFIL1 (FILTER 1 LEFT)
MAI (MONO AUDIO IN)
SAIL (STEREO AUDIO IN LEFT)
SAIR (STEREO AUDIO IN RIGHT)
AMOL (LEFT AUDIO OUT WITH MUTE)
AMOR (RIGHT AUDIO OUT WITH MUTE)
EAIL (LEFT EXTERNAL AUDIO IN)
EAIR (RIGHT EXTERNAL AUDIO IN)
16
39
8
5
4
42
9
41
23
22
21
19
18
10
11
34
35
36
31
32
37
38
IIn (SYSTEM I IN) 7
BGIn (SYSTEM BG IN) 6
TEST 24
RESET (CHIP RESET) 15
SWITCH
AGC
OSPSK DEMOD
CLOCK & DATA RECOVERY
DUAL FREQ SYNTHESISER
DAC
LPF
DAC
LPF
SWITCH
MUTE
MATRIX SWITCH
SERIAL INTERFACE
27 AOL (AUDIO OUT L)
28 AOR (AUDIO OUT R)
29 DC1 (DE-COUPLING 1)
30 DC2 (DE-COUPLING 2)
25 MMO (MATRIX MUTE OUT)
1
25
13
AGND
2
3
40
12
14
33
17
20
DGND
XC1 (13.104MHz X-TAL)
XC2 (11.7MHz X-TAL)
XK1 (11.648MHz X-TAL)
RG (GAIN ADJUST RESISTOR)
RFIL1 (FILTER 1 RIGHT)
CAP (DE-COUPLING CAPACITOR)
SERI (INTER-CHIP SERIAL BUS IN)

TDA8417 (MULTIPLXED DECODER)


NO CONNECTION
EXTERNAL AF INPUT (E4)
NO CONNECTION
6
9
10
ANTI-ALIASING
SOUND CHANNEL INPUT AF1, AF2 (E1, E2)
8
7
DEMATRIX AND DE.EMPHASIS
E1' L.A
E2' R.B
CLOCK
CONTROL
AF SWITCH
CONTROL
CONTROL
SOURCE SELECTOR
11
12
13
14
OUTPUT A1-4 AF1, 2 OUTPUT
ANTI-ALIASING 54.7KHz
CLOCK
CLOCK
CLOCK
CLOCK
RESET
117Hz
RESET
274Hz
CLOCK
CONTROL
RESET
OSCILLATOR INPUT (OR QUARTZ) 4
OSCILLATOR
FREQUENCY COUNTER
CLOCK
SUPPLY
POWER ON RESET
I²C-BUS TRANSCEIVER
LOGIC
1 CONTROL PORT C1
19 CONTROL PORT C2
15
16
5
17
20
2
3
18
SUPPLY VOLTAGE
ANALOG/DIGITAL GND
RIPPLE REJECTION IMPROVEMENT
NO CONNECTION
SCL/SDA SERIAL DATA/CLOCK LINE
MUTE INPUT

FLD FIP10CCM7A


10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
I-HQ
VCR
VPS PDC
SP
AUTO STOP
LP
REMAIN
PAL
ME SECAM
H
NICAM
M1 M2
M
Hi·Fi
DUAL
OTR
S
L R STEREO
PS
D



Internal connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	STOP	a	a	a	a	a	a	▶▶▷	a	a
S2	AUTO	b	b	b	b	b	b	◁◀◀	b	b
S3	VCR	c	c	c	c	c	c	▯▮	c	c
S4	SP	d	d	d	d	d	d	○	d	d
S5	LP	e	e	e	e	e	e	▮▯	e	e
S6	REMAIN	f	f	f	f	f	f	◀◁◁	f	f
S7	📼	g	g	g	g	g	g	▷	g	g
S8	**VPS**	⏲	H			M	S	▷▷▶	PS	D
S9	**PDC**		•	SECAM		M2	OTR	STEREO		
S10	**I-HQ**		•	ME		M1	DUAL	R		
S11			PAL			NICAM	**Hi·Fi**	L		

ABBREVIATIONS (VIDEO)

ABBREVIATION	EXPLANATION
A	Audio or Analogue
AC	Alternating Current
ACC	Automatic Color Control
A/C	Audio and Control
ADJ	ADJust (ment)
AFC	Automatic Frequency Control
AFT	Automatic Fine Tuning
AGC	Automatic Gain Control
AH	Audio Head
AL	ALways (voltage)
ALC	Automatic Level Control
A-SW.P	Audio SWitching Pulse
A-MUTE	Audio MUTE
ANT	ANTenna
APC	Automatic Phase Control
ASSY	ASSemblY
BAL	BALance
B DOWN	Break DOWN
BGP	Burst Gate Pulse
BLK	BLocK or BLacK
BOP	Blank Output Pulse
BPF	Band Pass Filter
BU	Back Up (voltage)
B/W	Black and White
C	Chroma or Color
CCD	Charge Coupled Device
CCIR	Comit Consultatif International des Radio communications
CH (ch)	CHannel (channel)
CLK	CLocK
CM	Capstan Motor
CN	CoNnector
COMP	COMParator
CSW	Cassette SWitch
CSYNC	Composite SYNC
CTL	ConTrol
CUE	CUE
DAC	Digital to Analog Converter
DC	Direct Current
DEMOD	DEMODulator
DET	DETetct (DETector)
DL	Delay Line
DM	Drum Motor
DOC	Drop Out Compensator
D.P.E	Drum Phase Error
D.PG	Drum Pulse Generator
EE	Electronic to Electronic
EF	Emitter Follower
EMPHA	EMPHAsis
ENV	ENVelope
EP	Extended Play
EP ROM	Erasable Programmable ROM
EQ	EQualizer
FE	Full track Erase
FF	Flip-Flop or Fast Foward
FG	Frequency Generator
Fig	Figure
FLD	FLuorescent Display
FM	Frequency Modulation
Fo	resonance Frequency
FREQ	FREQuency
GND	GrouND
H	Horizontal
HP	Horizontal (sync) pulse
HPF	High Pass Filter
HQ	High Quality System
IC	Integrated Circuit
ID	IDentification
IDL	IDLe (Voltage)
IMS	Interactive Monitor System
INS	INSert
INV	INVerter
L	Left
LED	Light Emitting Diode
LIM	LIMitter
LM	Loading Motor
LM STP	Loading Motor STop
LP	Long Play
LPF	Low Pass Filter
ME-SECAM	Middle East SECAM
MI-COM	MIcro COMputer
MM	Mono-stayble Multi
MOD	MODulator
MRS	Motor ReverSe
NAP	Ntsc Amusement Pal
NG	Noise Gate
NICAM	Near Instanteneous Compand Audio Multiplex
NON-LIN	NON-LINear
N.T.S.C.	National Television System Committee
OSC	OSCillator
PAL	Phase Alternation by Line
PB	Play Back
PCB (P.C.B)	Printed Circuit Board
P-COM	Phase-COMparator
P DOWN	Power DOWN
PG	Pulse Generator
P.I.P	Picture In Picture
PL, PLG	PLunger (PLunGer)
PRG (PGM)	PRoGram (ProGraM)
PU	Pick UP (head, pulse)
PWR	PoWeR
Q	Quality factor
R	Right
RAM	Random Access Memory
REC	RECord
REF	REFerence
REF-V	REFerence Vertical signal
REG	REGulator
REV (REVW)	REView (REVieW)
REW	REWind
RF	Radio Frequency
ROM	Read Only Memory
R.S SW	Record-Safety SWitch
RST (RES)	ReSet (RESet)
RVS	ReVerSe
S	Sensor, Shield
SAW	Surface Acoustic Wave
SC	SimulCast
S CLK	Serial CLocK
SECAM	SÉquentiel Couleur À Mémoire
S & H	Sample and Hold
SLP	Super Long Play
SP	Standard Play
SPD	SPeeD
SRP	Supply Reel Pulse
SRV	SeRVo
SOW	Sync On Word
STBY	STandBY
S.VHS	Super VHS
SW	SWitch
SW'NG	SWitchiNG
SWP	SWitching Pulse
SYNC	SYNChronize
T-AUDIO	Tuner AUDIO
TPZ (TRAPE)	TraPeZoid (TRAPEzoid)
TRK	TRacKing
TRP	Take up Reel Pulse
T/U	Take Up
TV	TeleVision
UHF	Ultra High Frequency
UNR	UNRegulated (voltage)
V	Vertical or Video
VASS	Video Address Search System
VCO	Voltage Controlled Oscillator
VH	Video Head
VHF	Very High Frequency
VHS	Video Home System
VIF	Video Intermediate Frequency
VISS	Video Index Search System
VJ	Video Judge
VM	Voltage for Memory
VOB	Video On Blank
VOW	Video On Word
VP	Vertical (sync) Pulse
VPS	Video Program System
VPT	Video Programming by video Text
VT	Voltage for Tuning
WHT	WHiTe
Y	Luminance
2H	2 Hour (SP)
4H	4 Hour (LP)
6H	6 Hour (SLP/EP)